Acer B243W

Service Guide

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Service Guide Version and Revision

Version	Release Date	Revision History	TPV model
A00	Apr.-3-2008	Initial Release	TK7SMHDBW7AYBC/ TK7SMHDKW7AYBC

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Conventions
The following conventions are used in this manual:

Screen messages	Denotes actual messages that appear on screen.
Note	Gives bits and pieces of additional information related to the current topic.
Warning	Alerts you to any damage that might result from doing or not doing specific actions.
Caution	Gives precautionary measures to avoid possible hardware or software problems.
Important	Remind you to do specific actions relevant to the accomplishment of procedures.

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Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office may have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.

2. Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

Warning: (For FCC Certified Models)

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

Notice:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibility of the user to correct such interference.

   As ENERGY STAR® Partner our company has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Warning:

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerous high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

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Precautions

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool or in a wet basement.
- Do not place the monitor on an unstable trolley, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a trolley or stand recommended by the manufacturer or sold with the monitor. If you mount the monitor on a wall or shelf, uses a mounting kit approved by the manufacturer and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug, or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100 - 240V AC, Min. 5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.

Special Notes On LCD Monitors

The following symptoms are normal with LCD monitor and do not indicate a problem.

Notes

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.

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Monitor Features

Chapter 1

Introduction

Scope

This specification defines the requirements for the 24” MICROPROCESSOR based Multi-mode supported high resolution color LCD monitor. This monitor can be directly connected to general 15-pin D-sub VGA connector and 24-pin DVI connector, also supports VESA DPMS power management and plug & play function.

Description

The LCD monitor is designed with the latest LCD technology to provide a performance oriented product with no radiation. This will alleviate the growing health concerns. It is also a space saving design, allowing more desktop space, and comparing to the traditional CRT monitor, it consumes less power and gets less weight in addition MTBF target is 50k hours or more.

Chart of B243W

Panel	LTM240CT01 801(A01)
Signal Interface	D-Sub 15-pin/ DVI 24-pin
Sync Type	Separate / Compatible
Color Temp User Adjust	Support
DDC	DDC2B
Speaker	No
Headphone Jack	Yes
Microphone Jack	No
USB Hub	Yes
Tilt / Swivel	Yes / Yes

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Electrical Requirements

Standard Test Conditions

All tests shall be performed under the following conditions, unless otherwise specified.

Ambient light	Dark room (< 1 cd/m2)
Viewing distance	35-50cm
Warm up time	＞30 minutes
Analog Input signal	700 mVss
Control temperature	6500° K
Brightness control	Set to Factory preset value (cut off raster)
User contrast control	Set to The value under user mode, which allows that the brightest two of 32 linear distributed gray-scales (0～ 700mv) can be distinguished.
Picture position and size	Factory preset value
Viewing angle	90°+/-20 ° H and 90°+/-10° V
AC Supply voltage	230V± 5％, 50±3Hz
Ambient temperature	20+5℃
Humidity	65% ± 20%
Display mode	1920x1200, 60 Hz, all white
e-color mode	Set to “User” mode

Measurement systems

The units of measure stated in this document are listed below:

1 gamma = 1 nano tesla

1 tesla = 10,000 gauss

cm = in x 2.54

Lb = kg x 2.2

Degrees F = [°C x 1.8] + 32

Degrees C = [°F - 32]/1.8

u' = 4x/(-2x + 12y + 3)

v' = 9y/(-2x + 12y + 3)

x = (27u'/4)/[(9u'/2) - 12v' + 9]

y = (3v')/[(9u'/2) - 12v' + 9]

nits = cd/(m2) = Ft-L x 3.426

lux = foot-candle x 10.76

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LCD Monitor General Specification

LCD Panel	Driving system	TFT Color LCD
	Active Display Area	518.4(H) x 324.0(V)
	Pixel pitch	0.270(H) x 0.270(W)
	Contrast Ratio	1000 : 1
	Response time	5ms
	Luminance of White	400(Typ.) cd/㎡
Input	Separate Sync.	H/V TTL
	H-Frequency	30kHz – 80kHz
	V-Frequency	56-76Hz
Viewing angle	(H)160 (V) 160(Type)	
Display Colors	16.7M	
Display mode	1920 x 1200 @60Hz	
EPA ENERGY STAR®	ON Mode	< 118W
	OFF Mode	< 1W
Contrast control	Set to factory preset value, which allows that the brightest two of 32 linear distributed gray-scales (0～ 700mv) can be distinguished.	
Power Source	90 V ~ 240 V，50 ± 3Hz, 60 ± 3Hz	
Environmental Considerations	Operating Temp: 0° to 40°C Storage Temp: -30° to 65°C Operating Humidity: 0% to 90% Storage Humidity: 0% to 90%	
Peak surge current	< 100 A peak at 230 VAC and cold starting&25℃ & DC Output at Full-load	
Power line surge	No advance effects (no loss of information or defect) with a maximum of 1 half-wave missing per second	

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LCD Panel Specification

LTM240CT01 is a color active matrix liquid crystal display (LCD) that uses amorphous silicon TFT (Thin Film Transistor) as switching components. This model is composed of a TFT LCD panel, a driver circuit and a back light unit. The resolution of a 24.0" is 1920 x 1200 and this model can display up to 16.7 millions colors.

General Specifications

Items	Specification	Unit
Pixel Pitch	0.270(H) x 0.270(W)	mm
Active Display Area	518.4(H) x 324.0(V)	mm
Surface Treatment	Haze 25% , Hard-coating (3H)	
Display Colors	16.7M (6bit Hi FRC)	colors
Number of Pixels	1920 x 1200	pixel
Pixel Arrangement	RGB vertical stripe	
Display Mode	Normally White	
Luminance of White	400(Typ.)	cd/㎡

Mechanical Information

Item		Min.	Typ.	Max.	Unit	Note
Module size	Horizontal (H)	545.9	546.4	546.9	mm	w/o inverter ass'y
	Vertical (V)	351.5	352.0	352.5	mm	
	Depth (D)	-	-	36.3	mm	
Weight		-	-	3,400	g	LCD module only

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Electrical Characteristics

Item		Symbol	Min.	Typ.	Max.	Unit	Note
Voltage of Power Supply		V_{DD}	4.5	5.0	5.5	V	(1)
LVDS Input Characteristics	Differential Input Voltage for LVDS Receiver Threshold	High	-	-	+100	mV	(2)
		Low	-100	-	-	mV	
	LVDS skew	t_{SKEW}	-300		300		(3)
	Differential input voltage	$\|V_{ID}\|$	200		600	mV	(4)
	Input voltage range (single-ended)	V_{IN}	0		2.4	V	(4)
	Common mode voltage	V_{CM}	0+ $\|V_{ID}\|/2$	1.2	2.4- $\|V_{ID}\|/2$	V	(4)
	Input current	I_{IN}			±10	μA	
Current of Power Supply	(a) Black	I_{DD}	-	1,700	2,000	mA	(5),(6)
	(b) White		-	2,000	2,300	mA	
	(c) Dot		-	2,400	3,000	mA	
Vsync Frequency		f_V	53	60	63	Hz	
Hsync Frequency		f_H	65	74	78	kHz	
Main Frequency		f_{DCLK}	68	77	81	MHz	
Rush Current		I_{RUSH}	-	-	5.0	A	(7)

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Optical Specifications

(Ta = 25 ± 2°C, VDD=5V, fv= 60Hz, fDCLK=77MHz, IL = 6.0mArms)

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Contrast Ratio (Center of screen)		C/R	Normal $\theta_{L,R}=0$ $\theta_{U,D}=0$ Viewing Angle	700	1,000	-		(3) SR-3
Response Time	On/Off	Tr + Tf		-	5	8	msec	(5) BM-7
Luminance of White (Center of screen)		Y_L		350	400	-	cd/m2	(6) SR-3
Color Chromaticity (CIE 1931)	Red	Rx		0.615	0.640	0.665		(7),(8) SR-3
		Ry		0.305	0.330	0.355		
	Green	Gx		0.275	0.300	0.325		
		Gy		0.575	0.600	0.625		
	Blue	Bx		0.125	0.150	0.175		
		By		0.035	0.060	0.085		
	White	Wx		0.288	0.313	0.338		
		Wy		0.304	0.329	0.354		
Color Chromaticity (CIE 1976)	Red	Ru'		-	0.451	-		
		Rv'		-	0.523	-		
	Green	Gu'		-	0.124	-		
		Gv'		-	0.564	-		
	Blue	Bu'		-	0.175	-		
		Bv'		-	0.158	-		
	White	Wu'		-	0.198	-		
		Wv'		-	0.468	-		

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Color Gamut		-		-	72	-	%	
Viewing Angle	Hor.	θ_L	CR≥10	70	80	-	Degrees	(8) SR-3
		θ_R		70	80	-		
	Ver.	θ_U		70	80	-		
		θ_D		70	80	-		
Brightness Uniformity (9 Points)		B_{uni}				25	%	(4) SR-3
Gamma value				1.9	2.2	2.5		

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Support Timing

VESA MODES							
			Horizontal		Vertical		
Mode	Resolution	Total	Nominal Frequency +/- 0.5KHz	Sync Polarity	Nominal Freq. +/- 1 Hz	Sync Polarity	Nominal Pixel Clock (MHz)
VGA	640x480@60Hz	800 x 525	31.469	N	59.940	N	25.175
	640x480@72Hz	832 x 520	37.861	N	72.809	N	31.500
	640x480@75Hz	840 x 500	37.500	N	75.00	N	31.500
SVGA	800x600@56Hz	1024 x 625	35.156	N/P	56.250	N/P	36.000
	800x600@60Hz	1056 x 628	37.879	P	60.317	P	40.000
	800x600@72Hz	1040 x 666	48.077	P	72.188	P	50.000
	800x600@75Hz	1056x625	46.875	P	75.000	P	49.500
XGA	1024x768@60Hz	1344x806	48.363	N	60.004	N	65.000
	1024x768@70Hz	1328x806	56.476	N	70.069	N	75.000
	1024x768@72Hz	1304x798	57.7	P	72	P	78.4
	1024x768@75Hz	1312x800	60.023	P	75.029	P	78.750
	1152x864@75Hz	1600X900	67.5	P	75	P	108.000
SXGA	1280x1024@60Hz	1688x1066	63.981	P	60.020	P	108.000
	1280x1024@70Hz	1688x1066	74.4	P	70	P	124.9
	1280x1024@72Hz	1688x1066	77.9	P	72	P	134.6
	1280x1024@75Hz	1688x1066	79.976	P	75.025	P	135.000
	1280x960@60Hz	1800x1000	60	P	60	P	108
	1440x900@60Hz	1904x934	55.93	P	60	P	106.5
WSXGA	1680x1050@60Hz	2240x1089	65.29	N	59.95	P	146.25
WUXGA	1920*1200@60HZ	2080*1235	74.038	P	59.95	N	154.00
UXGA	1600x1200@60Hz	2160x1250	75	P	60	P	162

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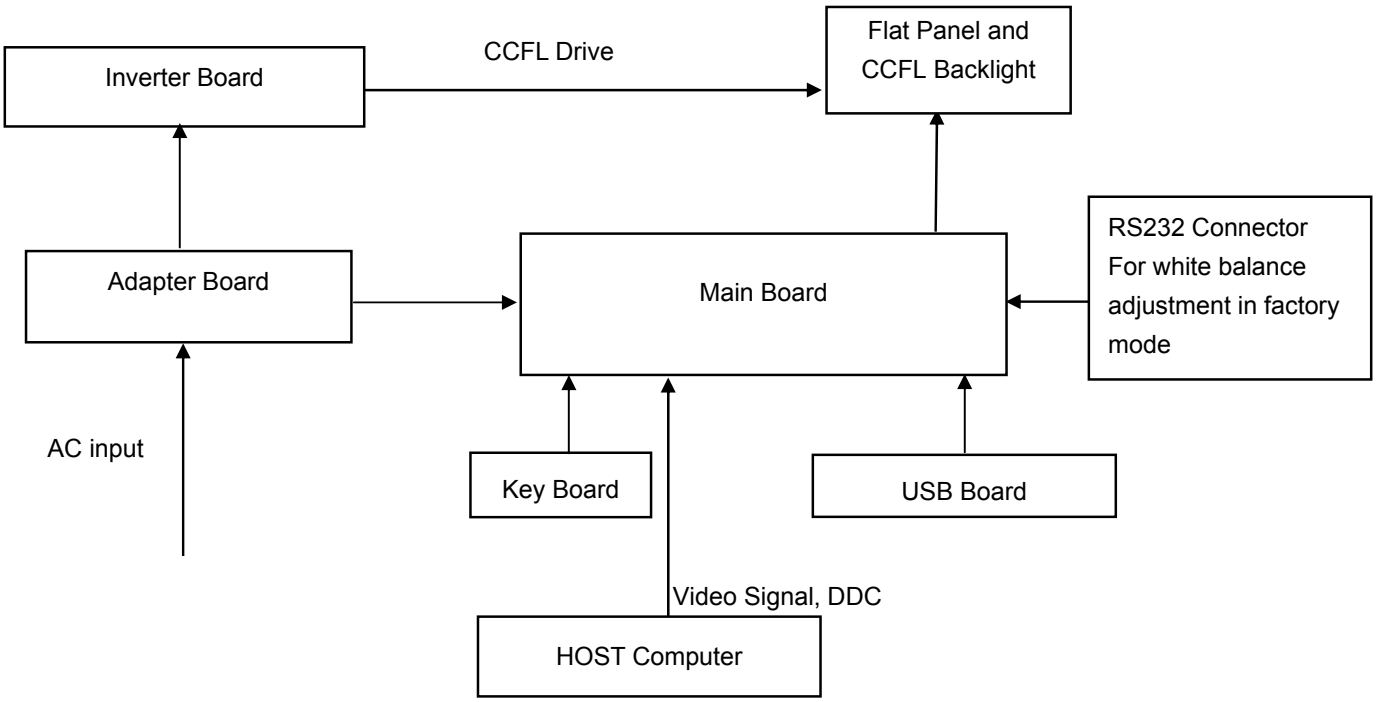
Monitor Block Diagram

The LCD MONITOR will contain a main board, an inverter board, an adapter board, a key board and a USB board which house the flat panel control logic, brightness control logic and DDC.

The power board will provide AC to DC Inverter voltage to drive the backlight of panel and the main board chips each voltage.



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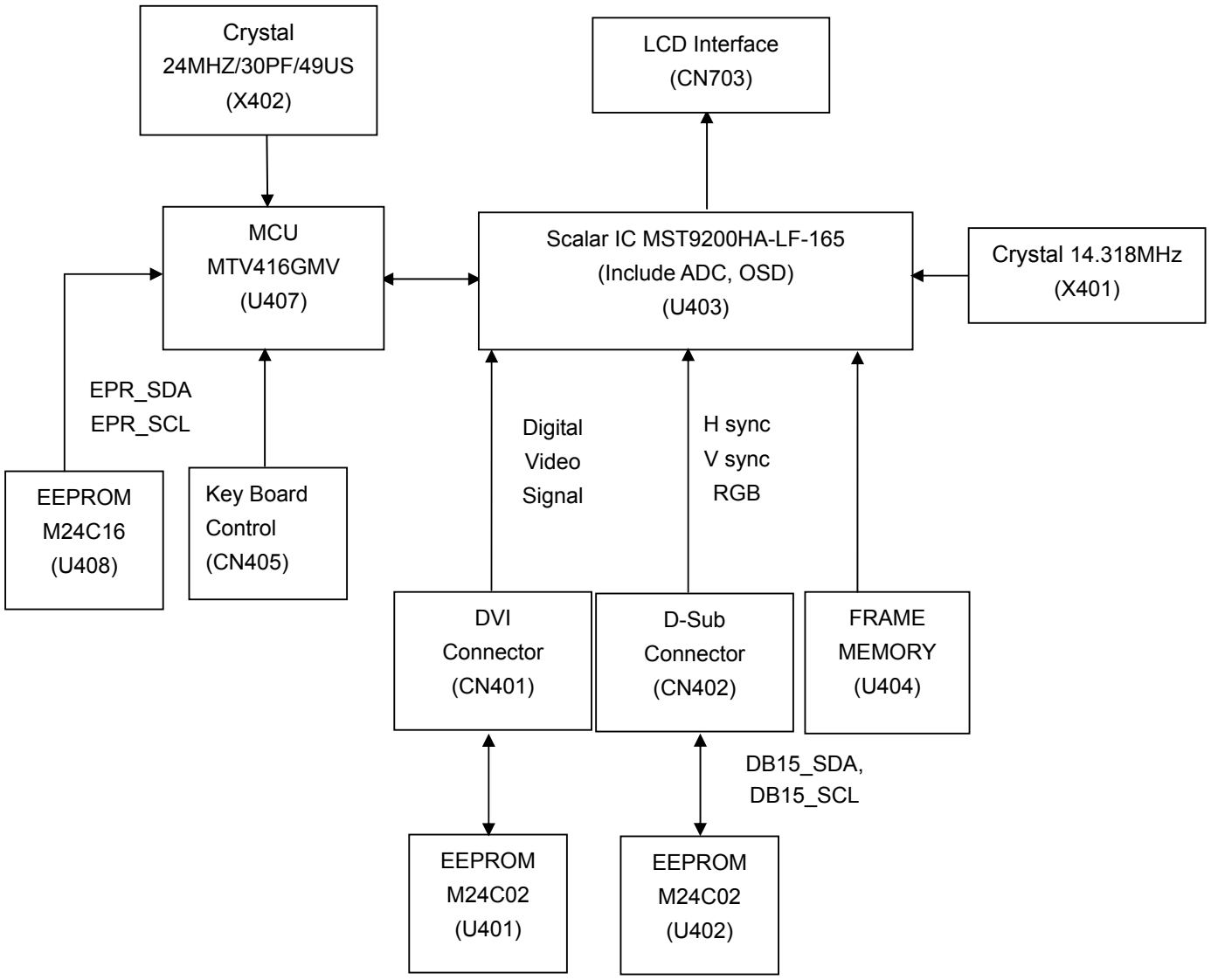
Main Board Diagram



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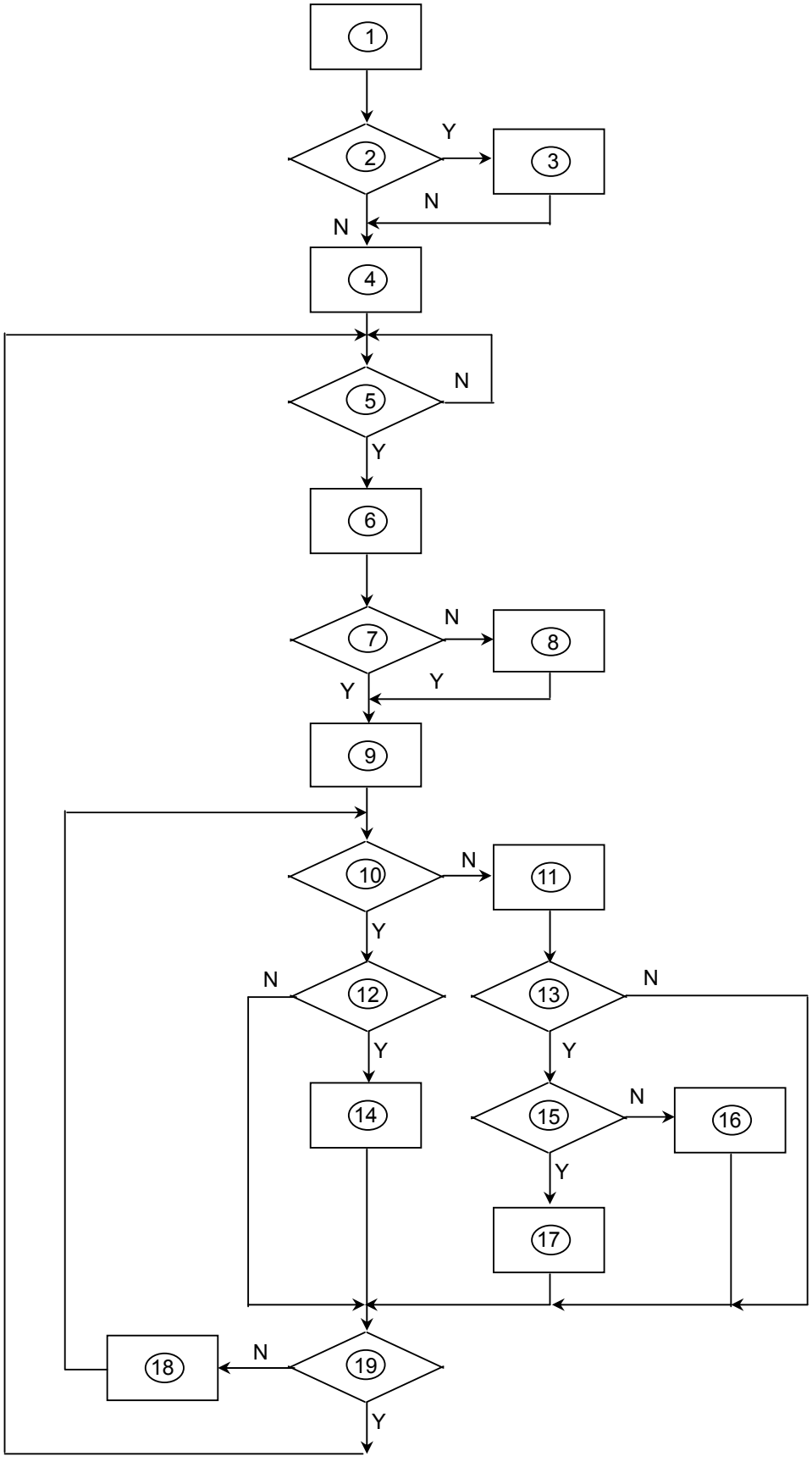
Software Flow Chart



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Remark:

1) MCU initializes.
2) Is the EEPROM blank?
3) Program the EEPROM by default values.
4) Get the PWM value of brightness from EEPROM.
5) Is the power key pressed?
6) Clear all global flags.
7) Are the AUTO and SELECT keys pressed?
8) Enter factory mode.
9) Save the power key status into EEPROM. Turn on the LED and set it to green color. Scalar initializes.
10) In standby mode?
11) Update the lifetime of back light.
12) Check the analog port, are there any signals coming?
13) Does the scalar send out an interrupt request?
14) Wake up the scalar.
15) Are there any signals coming from analog port?
16) Display "No connection Check Signal Cable" message. And go into standby mode after the message disappears.
17) Program the scalar to be able to show the coming mode.
18) Process the OSD display.
19) Read the keyboard. Is the power key pressed?

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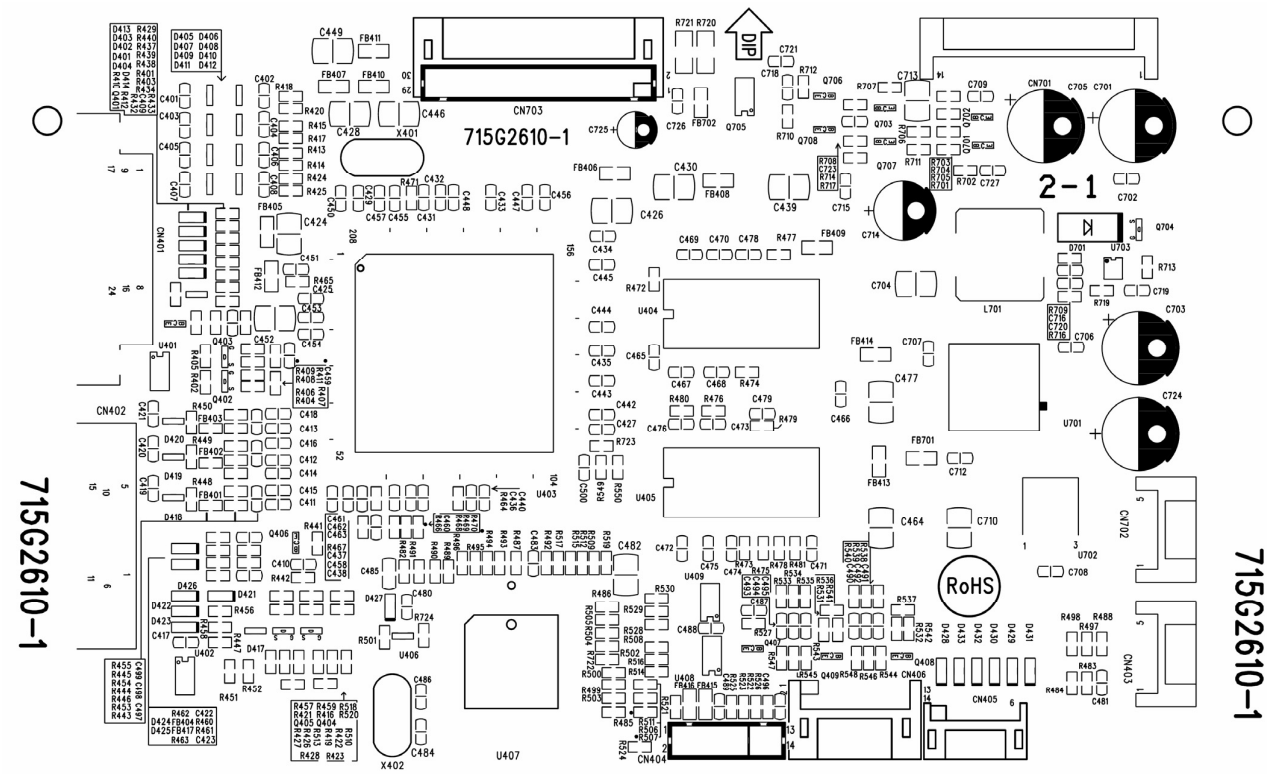
Main Board Layout



Symbol	Description	Symbol	Description
CN402	D-SUB 15PIN	U403	IC MST9200HA-LF-165 PQFP-208
CN401	DVI 24PIN CONN F	U701	IC AIC1084-33PMTR-R AIC
CN703	WAFER 30P 2.0MM DIP DUAL ROW	U702	IC AIC1084-33PMTR-R AIC
CN701	WAFER 14P RIGHT ANGLE PITCH	U404	IC EM636165TS-5G 16M TSOPII-50 ETRON
CN405	WAFER 6P RIGHT ANGLE PITCH 2.0	U405	IC EM636165TS-5G 16M TSOPII-50 ETRON
U407	MTV416GMV	U401	M24C02-WMN6TP
U402	M24C02-WMN6TP	U408	M24C16-WMN6TP
X402	24MHZ/30PF/49US	X401	XAT01431AFI1H-3OHX AT-49 14.31818MHZ

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Installation

To install the monitor on your host system, please follow the steps below:

Steps

1.Connect the video cable

A: Make sure both the monitor and computer are switched off.

B: Connect the VGA video cable to the computer.

C: Connect the digital cable (only for dual-input models).

(1) Make sure both the monitor and computer are switched off.

(2) Connect one end of the 24-pin DVI cable to the back of the monitor and the other end to the computer's port.

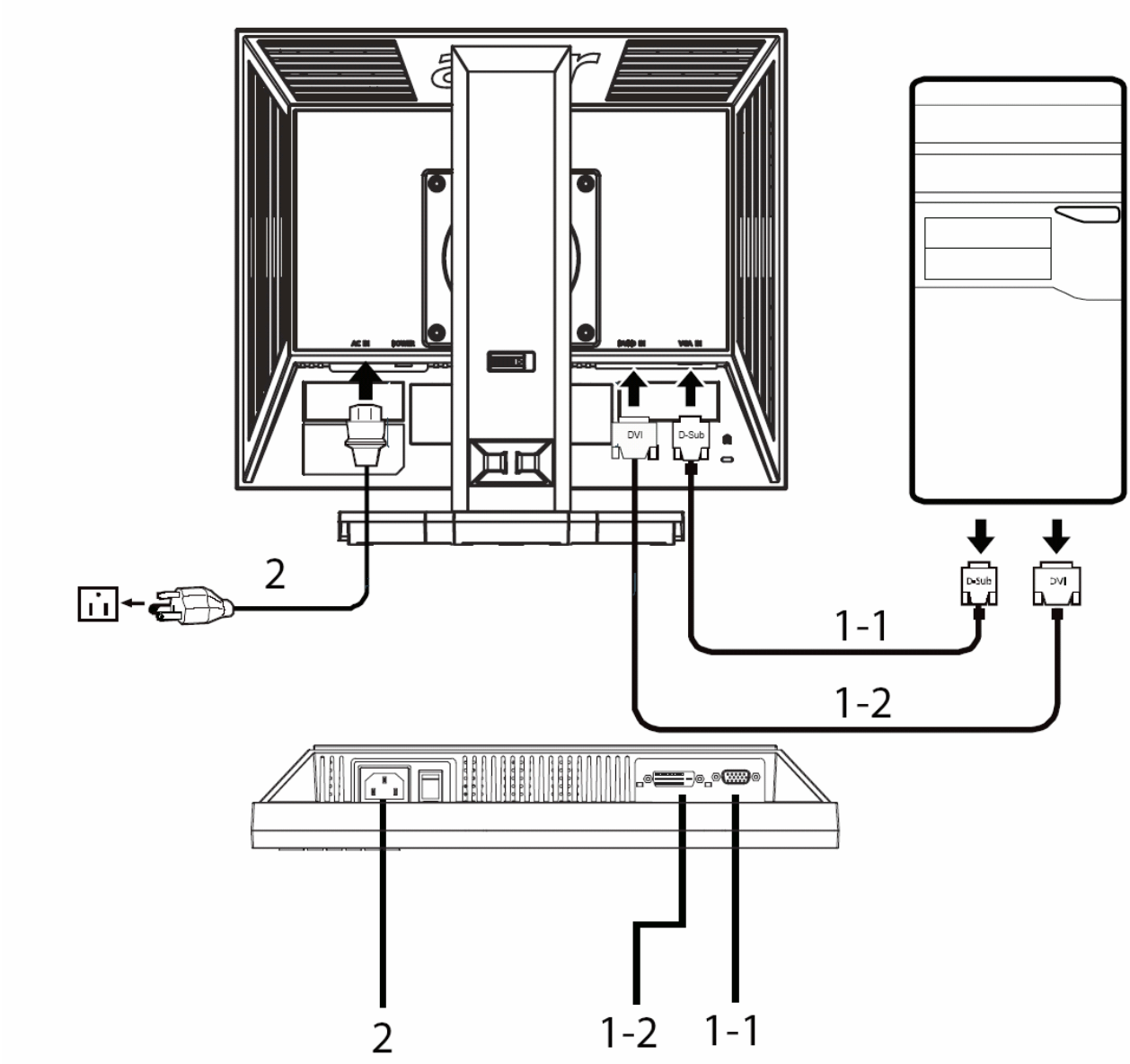
2.Connect the power cord

Connect the power cord to the monitor, then to a properly grounded AC outlet.

3.Turn on the monitor and computer

Turn on the monitor first, then the computer. This sequence is very important.

4.If the monitor does not function properly, please refer to the troubleshooting section to diagnose the problem.



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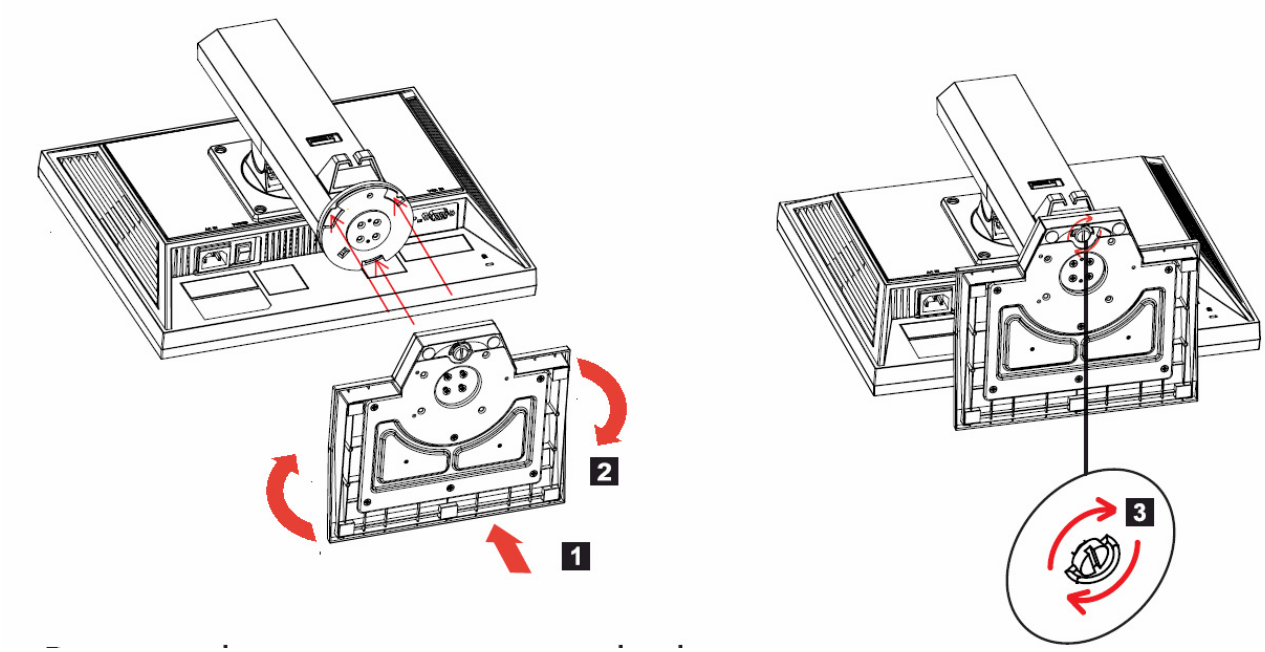
Attaching/Removing The Base

Install: Align the base with the stand and push the base towards the top of the monitor, and then rotate the base clockwise. Tighten the screw clockwise.



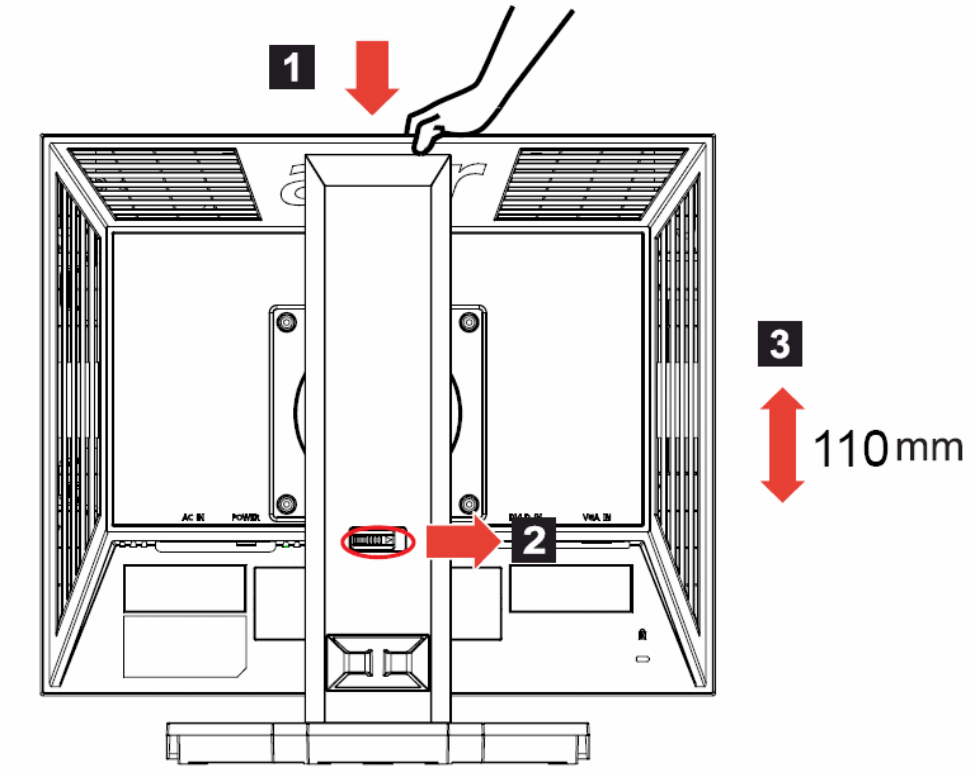
Remove: Reverse the steps to remove the base.

Screen Position Adjustment

In order to optimize the best viewing position, you can adjust the height/tilt/swivel/pivot of the monitor.

Height Adjustment

After pressing the top of the monitor, push the lock button towards right, then you can adjust the height of the monitor.



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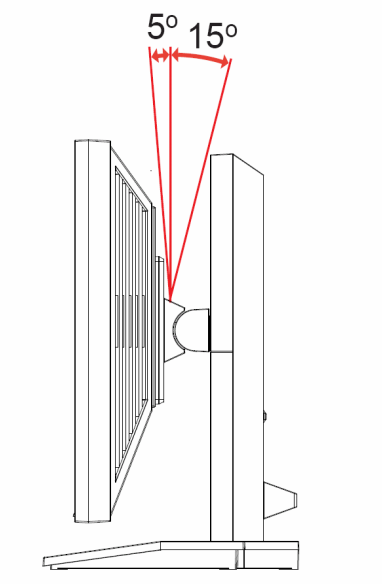
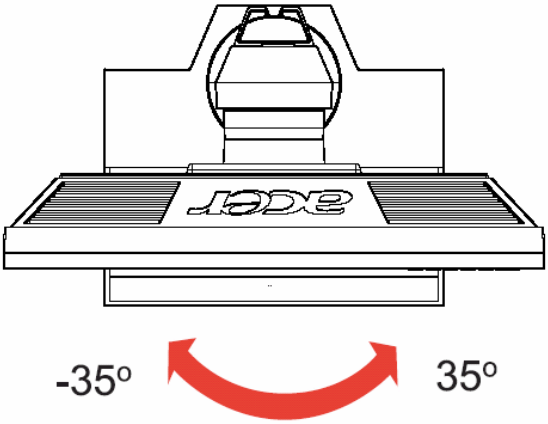
Tilt

Please see the illustration below for an example of the tilt range.



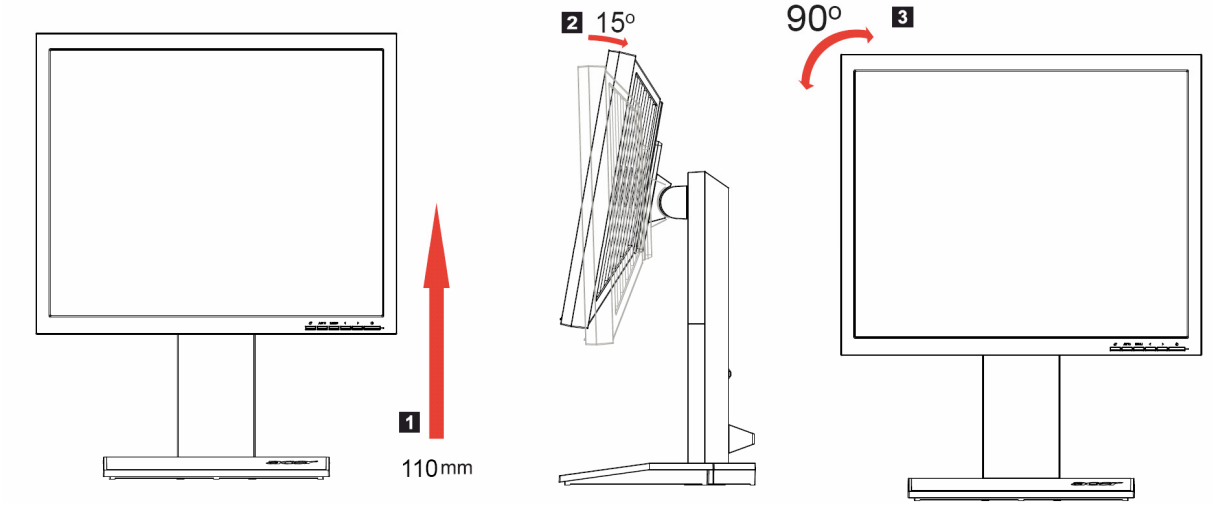
Swivel

With the built-in pedestal, you can swivel the monitor for the most comfortable viewing angle.



Monitor Pivot

Adjust height to the top position before rotation the monitor. Rotate clockwise until the monitor stops at 90°.



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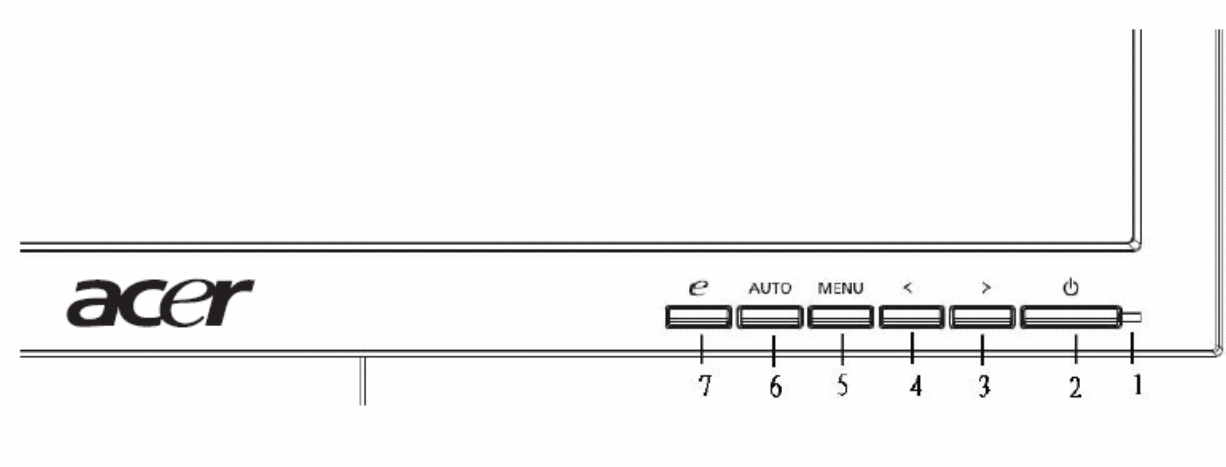
Operating Instructions

Chapter 2

Press the power button to turn the monitor on or off. The other control buttons are located at front panel of the monitor. By changing these settings, the picture can be adjusted to your personal preferences.

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- Press the power button to turn on the monitor position. The power indicator will light up.

External Controls



Front panel controls

1 Power LED: Lights up to indicate the power is turned on.

2 Power Switch: Turn the power on or off.

3.4 < / > : Press < or > to navigate to the desired function, press Enter to select the function. Press < or > to change the settings of the current function.

5 Menu/Enter: Activate the OSD menu when the OSD is off or activate deactivate the adjustment function when the OSD is on.

6 Auto adjust button/Exit:

a. When the OSD menu is active, this button will act as the exit key exit OSD menu).

b. When the OSD menu is inactive, press this button for two seconds to activate the Auto Adjustment function. The Auto Adjustment function s used to set the HPos, VPos, Clock and Focus.

7 Empowering Key/Exit:

a. When the OSD menu is active, this button will act as the exit key exit OSD menu).

b. When the OSD menu is inactive, press this button to select scenario mode.

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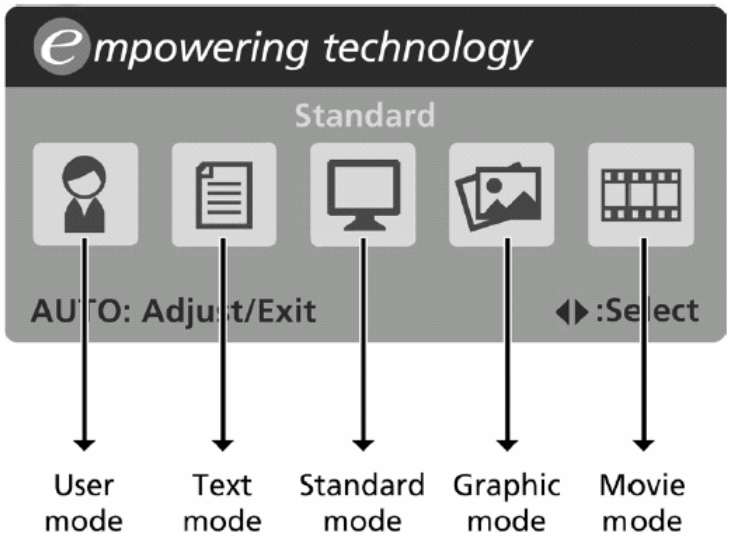
eColor Management (OSD)

- Operation instructions

  1 Press the Empowering Key to open the Acer eColor Management OSD and access the scenario modes.
  2 Press "<" or ">" to select the mode.
  3 Press the Auto-adjust button to confirm the mode and run Auto Adjust.



- Features and benefits

Main menu icon	Sub menu item	Description
	User mode	User-defined. Settings can be fine-tuned to suit any situation.
	Text mode	Optimal balance of brightness and contrast to prevent eyestrain. The most comfortable way to read onscreen text.
	Standard mode	Default settings. Reflects native display capability.
	Graphic mode	Enhances colors and emphasizes fine detail. Pictures and photographs appear in vibrant colors with sharp detail.
	Movie mode	Displays scenes in clearest detail. Presents great visuals, even in unsuitably-lit environments.

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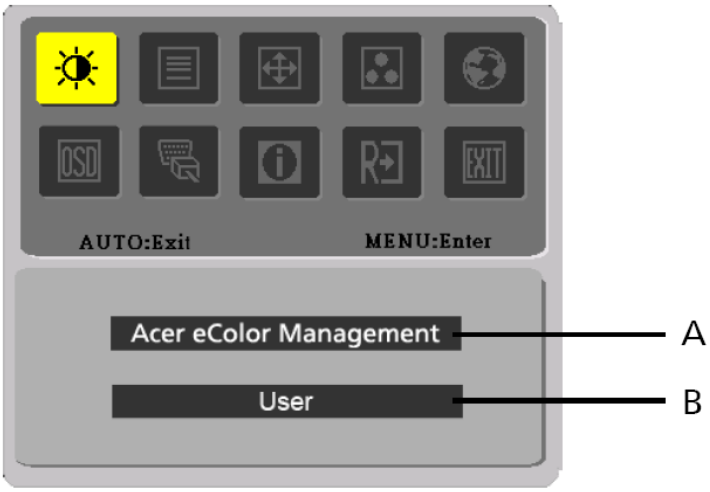
How to Adjust a Setting

1. Press the MENU-button to activate the OSD window.
2. Press < or > to select the desired function.
3. Press the MENU-button to select the function that you want to adjust.
4. Press < or > to change the settings of the current function.
5. To exit and save, select the exit function. If you want to adjust any other function, repeat steps 2-4.

- P/X Series OSD behave
  When user press "MENU" button on front bezel

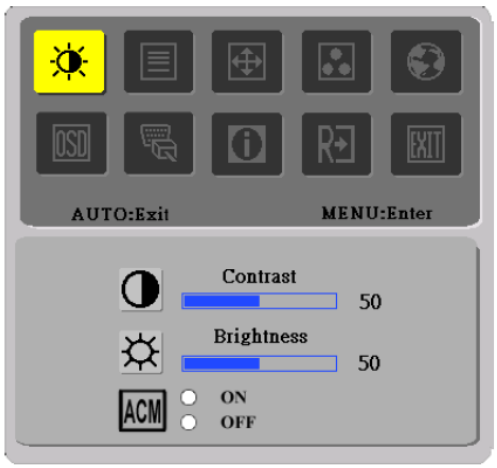


A. Acer eColor Management

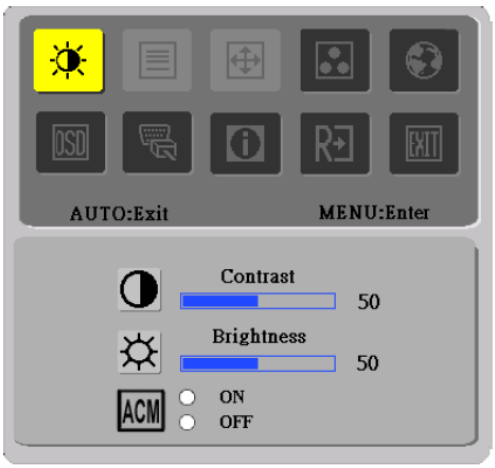
If selected to "Acer eColor Management " item, will appear the Acer eColor" OSD

B. USER

If selected to "USER" item, will appear the Standard OSD



I. Only Analog Input Model



II. Only Dual Input Model

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Adjusting the picture

Main Menu icon	Sub Menu icon	Sub Menu item	Description
		Contrast	Adjust the contrast between the foreground and background of the screen image
		Brightness	Adjust the background brightness of the screen image
		ACM	ACM (Adaptive Contrast Management)A CM ON/OFF Switch, default "OFF"
		Focus	Adjust picture Focus (available in analog mode only)
		Clock	Adjust picture Clock (available in analog mode only)

Main Menu Icon	Sub Menu Icon	Sub Menu Item	Description
		H. Position	Adjust the horizontal position. (available in Analog mode only)
		V. Position	Adjust the vertical position. (available in Analog mode only)
	N/A	Warm	Set the color temperature to warm white.
	N/A	Cool	Set the color temperature to cool white.
		User /Red	Adjusts Red/Green/Blue intensity.
		User /Green	
		User /Blue	

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	N/A	English	Multi-language selection.
	N/A	繁體中文	
	N/A	Deutsch	
	N/A	Francais	
	N/A	Espanol	
	N/A	Italiano	
	N/A	简体中文	
	N/A	日本語	
	N/A	Suomi	EMEA version OSD only
	N/A	Nederlands	
	N/A	Pyccknn	

Main Menu Icon	Sub Menu Icon	Sub Menu Item	Description
		H. Position	Adjust the horizontal position of the OSD.
		V. Position	Adjust the vertical position of the OSD.
		OSD Timeout	Adjust the OSD timeout.
	N/A	Analog	Select input signal from analog (D-Sub)
	N/A	Digital (only Dual-InputModel)	Select input signal from digital(DVI) (only Dual-Input Model)
	N/A	DDC/CI	Turn ON/OFF DDC/CI support
	N/A	Information	Show the resolution, H/V frequency andinput port of current input timing.
	N/A	Reset	Clear each old status of Auto-configurationand set the color temperature to Cool.
	N/A	Exit	Save user adjustment and OSD disappear.

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Logo

When the monitor is power on, the LOGO will be showed in the center, and disappear slowly.

How To Optimize The DOS-Mode

Plug And Play

Plug & Play DDC2B Feature

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities.

The DDC2B is a bi-directional data channel based on the I²C protocol. The host can request EDID information over the DDC2B channel.

This monitor will appear to be non-functional if there is no video input signal. In order for this monitor to operate properly, there must be a video input signal.

This monitor meets the Green monitor standards as set by the Video Electronics Standards Association (VESA) and/or the United States Environmental Protection Agency (EPA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video-input signal present. When there is no video input signals this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. Pressing a key on the keyboard, or clicking the mouse restores the display.

Using The Right Power Cord

The accessory power cord for the Northern American region is the wallet plug with NEMA 5-15 style and is UL listed and CSA labeled. The voltage rating for the power cord shall be 125 volts AC.
Supplied with units intended for connection to power outlet of personal computer: Please use a cord set consisting of a minimum No. 18 AWG, type SJT or SVT three conductors flexible cord. One end terminates with a grounding type attachment plug, rated 10A, 250V, and CEE-22 male configuration. The other end terminates with a molded-on type connector body, rated 10A, 250V, having standard CEE-22 female configuration.
Please note that power supply cord needs to use VDE 0602, 0625, 0821 approval power cord in European counties.

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This chapter contains step-by-step procedures on how to disassemble the monitor for maintenance.

Disassembly Procedure

1. Remove the hinge assembly as the following indicator. (Fig 1~2)

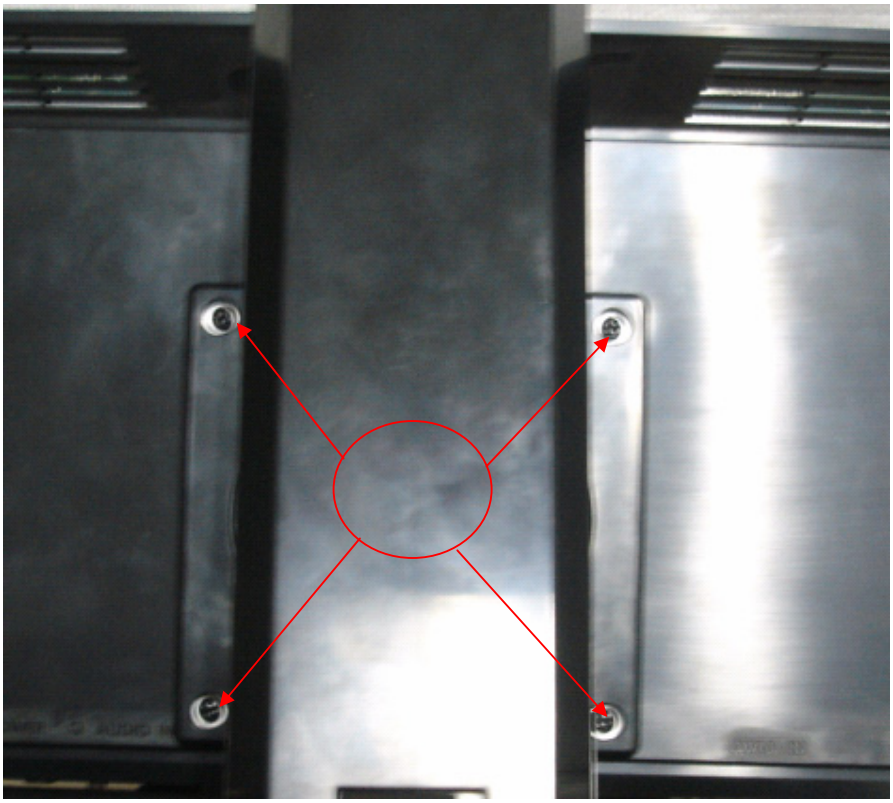

Fig 1

Fig 2

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2. Remove the back cover, bezel and remove the screws remarked in red in order to remove the main board below. (Fig 3~Fig 4)

Fig 3

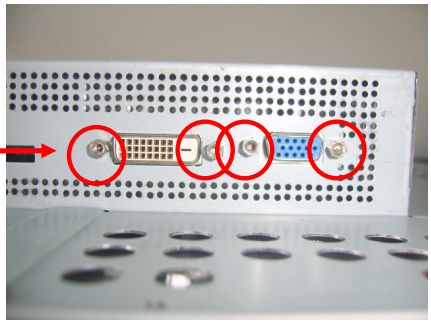

Fig 4

3. Release the shield inverter and lamp connectors. (Fig 5-7)

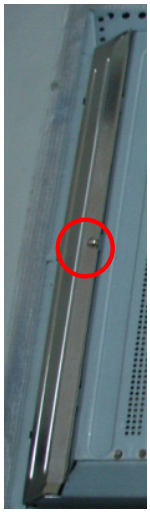

Fig 5

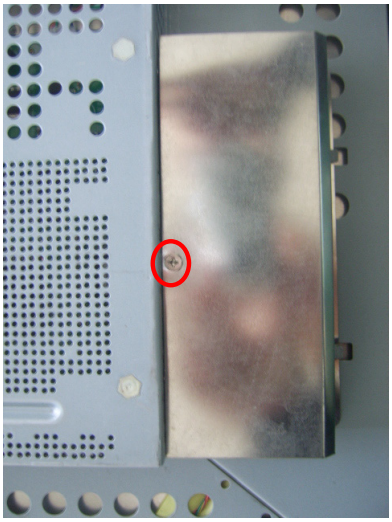

Fig 6

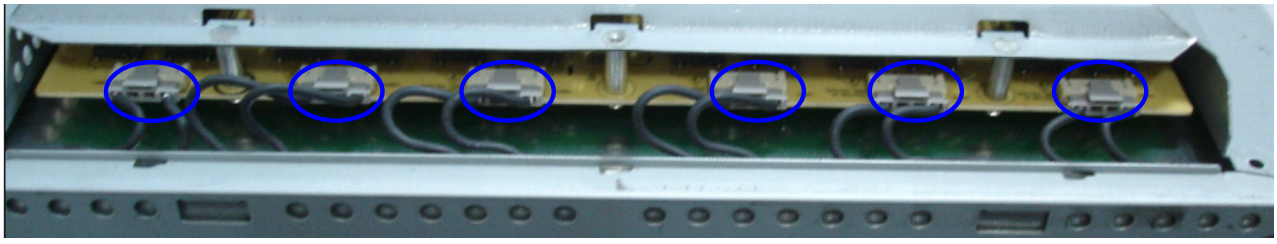

Fig 7

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4. Remove the screws remarked in red and release the connector remarked in blue to remove the USB board.(Fig 8)

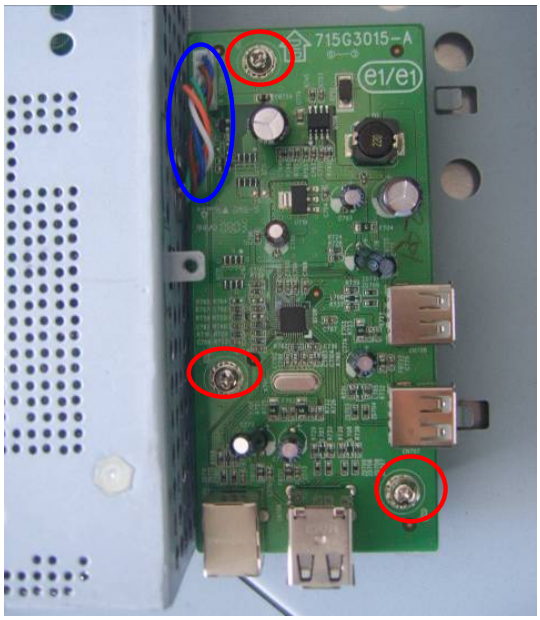

Fig 8

5. Remove the screws to remove the panel. Pay attention to the LVDS cable.(Fig 9-10)

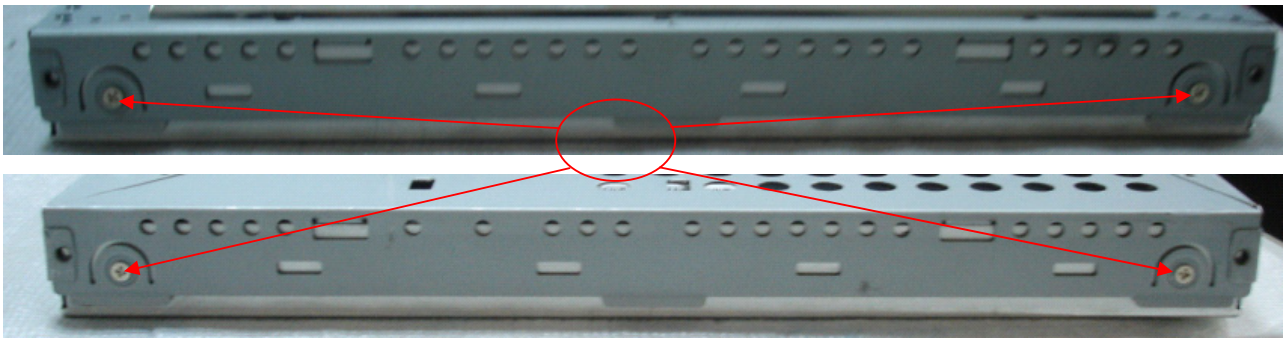

Fig 9

Fig 10

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6. Remove the screws to remove the main board, adapter board and inverter board.(Fig 11)

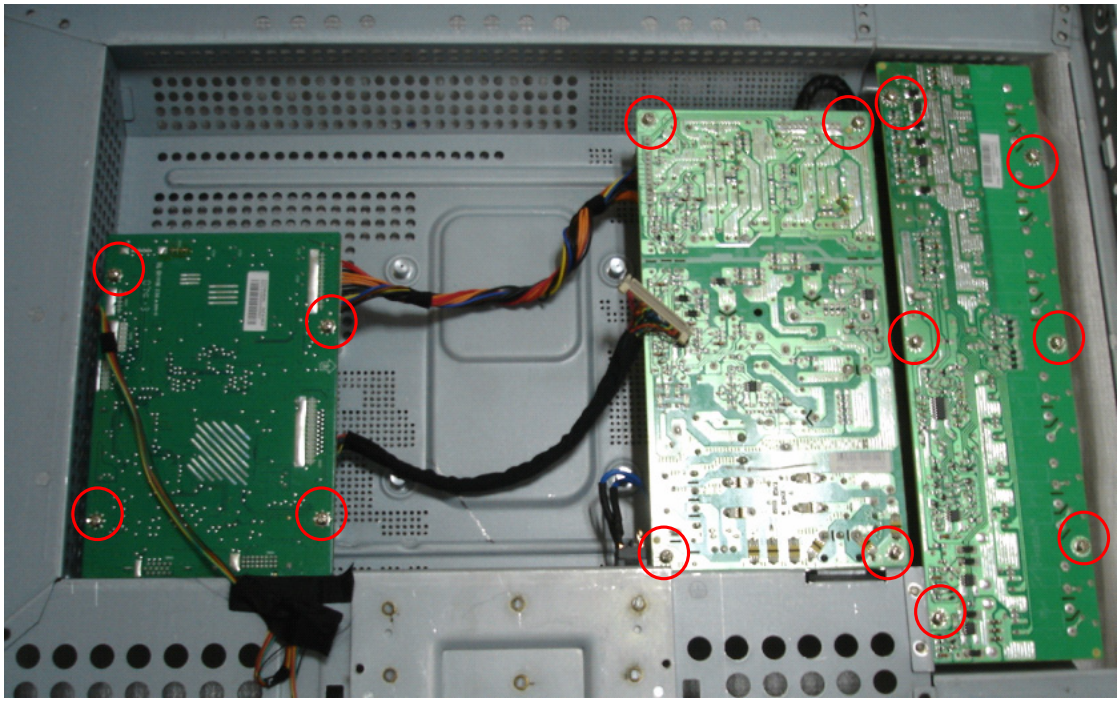

Fig 11

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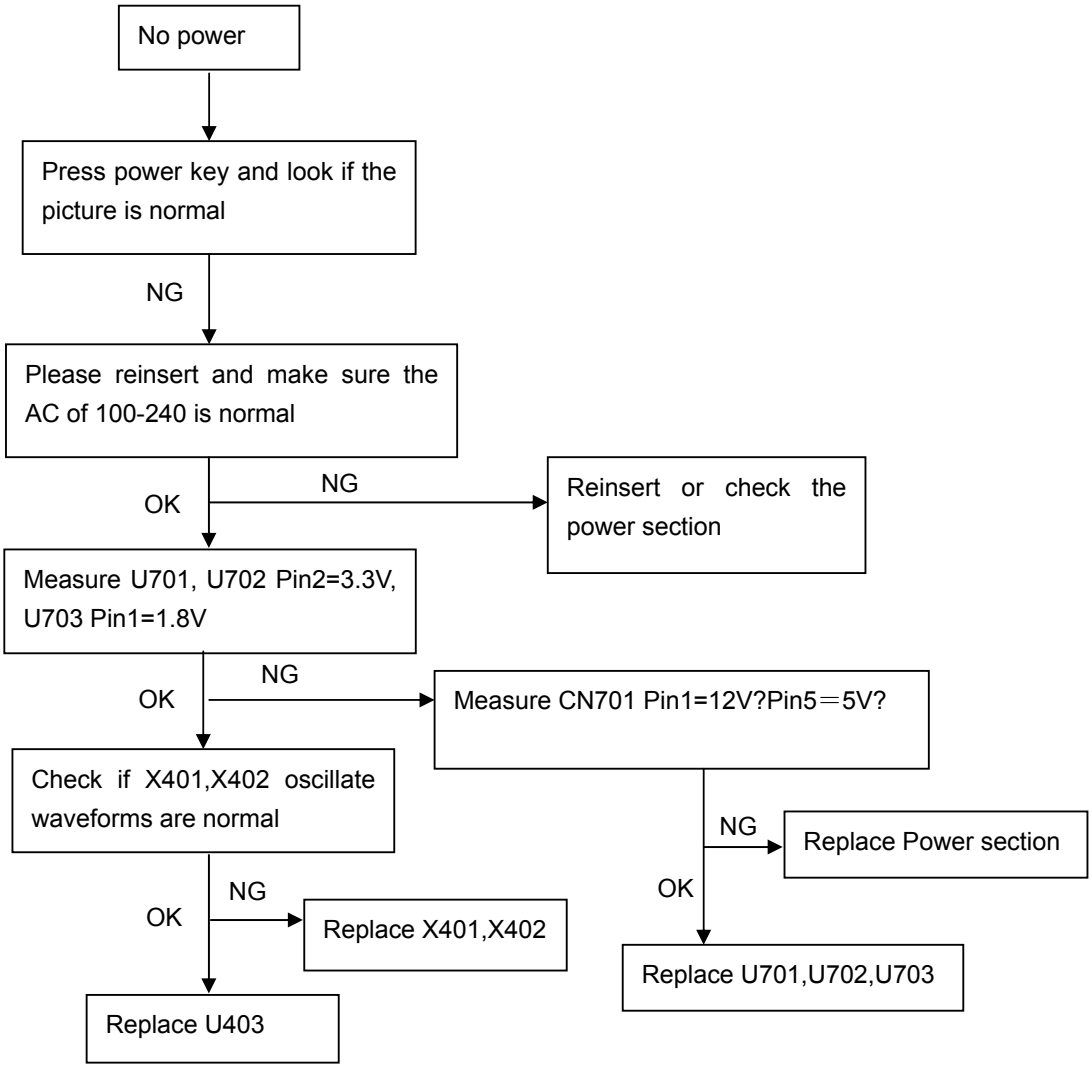
This chapter provides troubleshooting information for the B243W:

1. No Power



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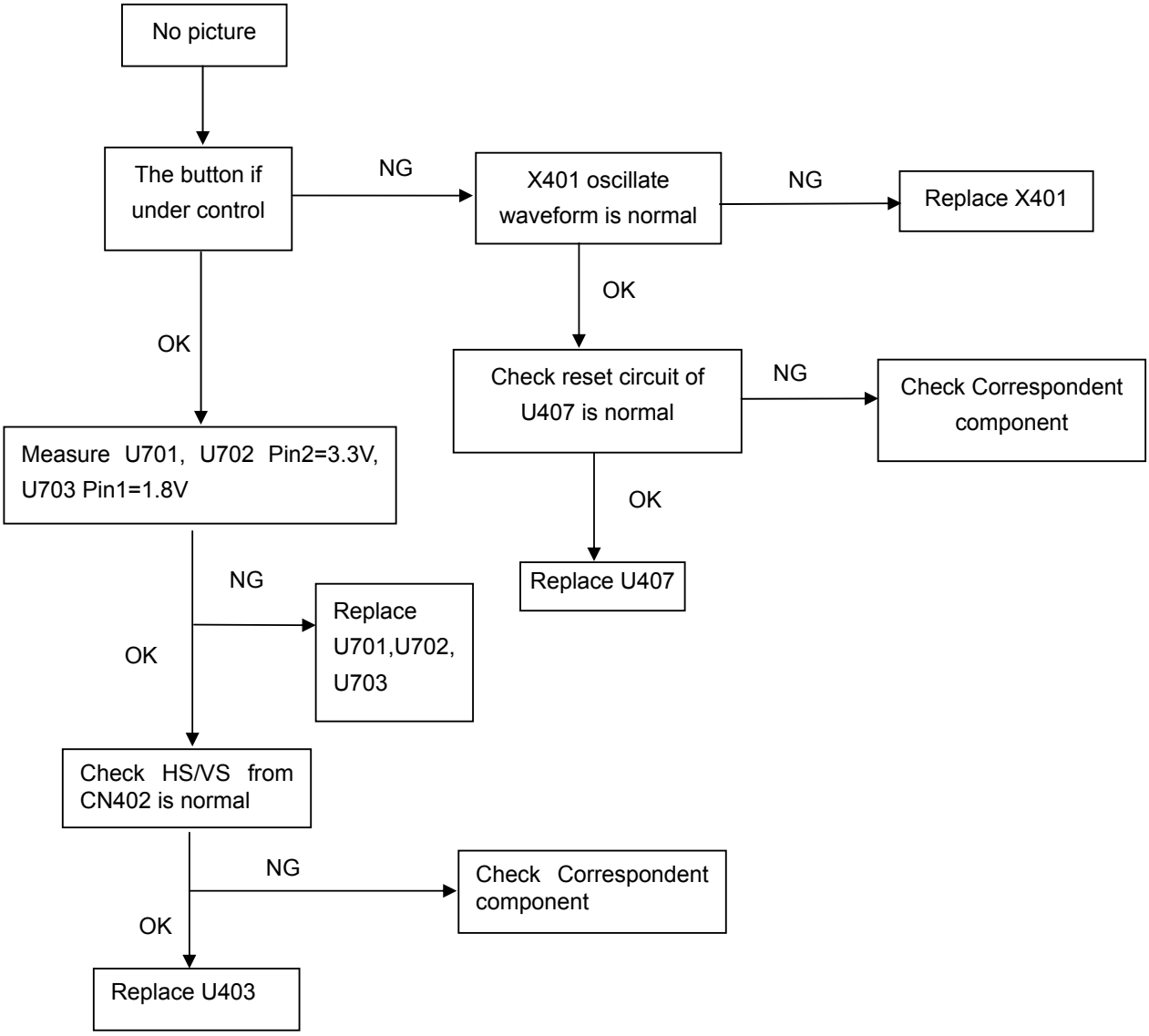
2. No Picture (LED is orange)



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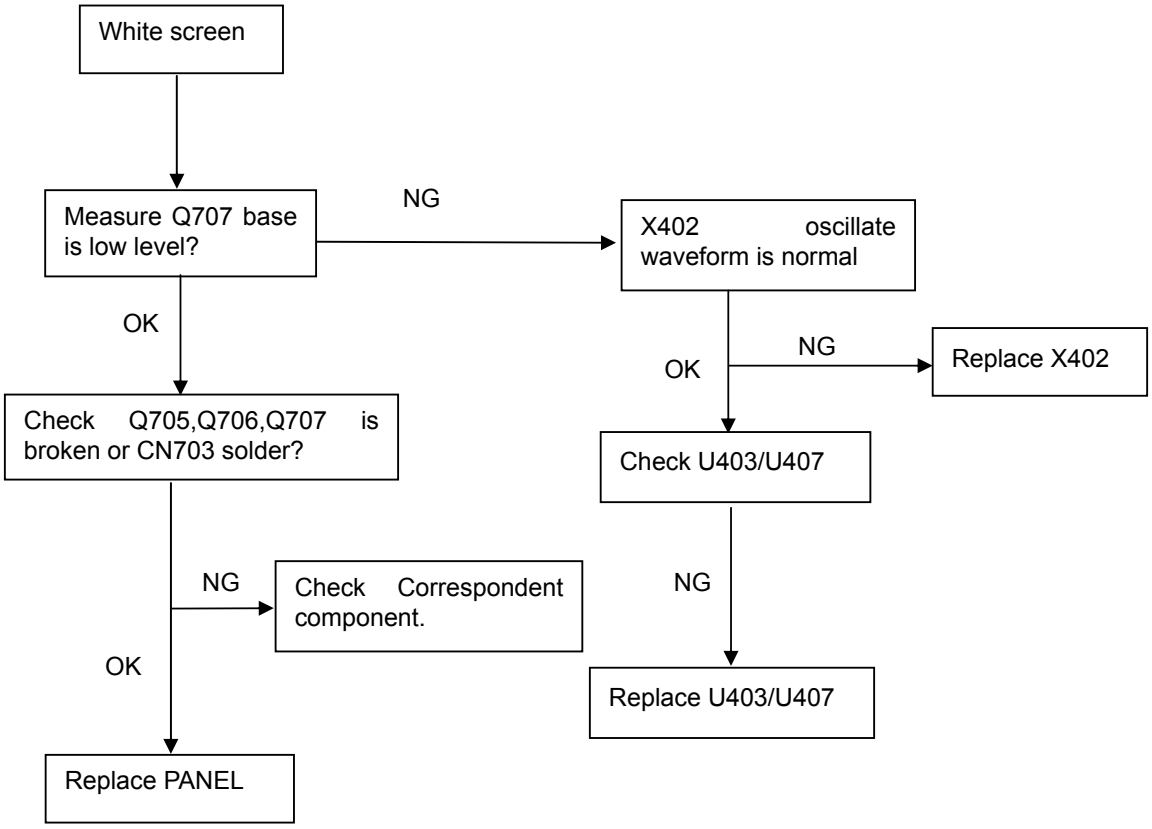
3. White screen



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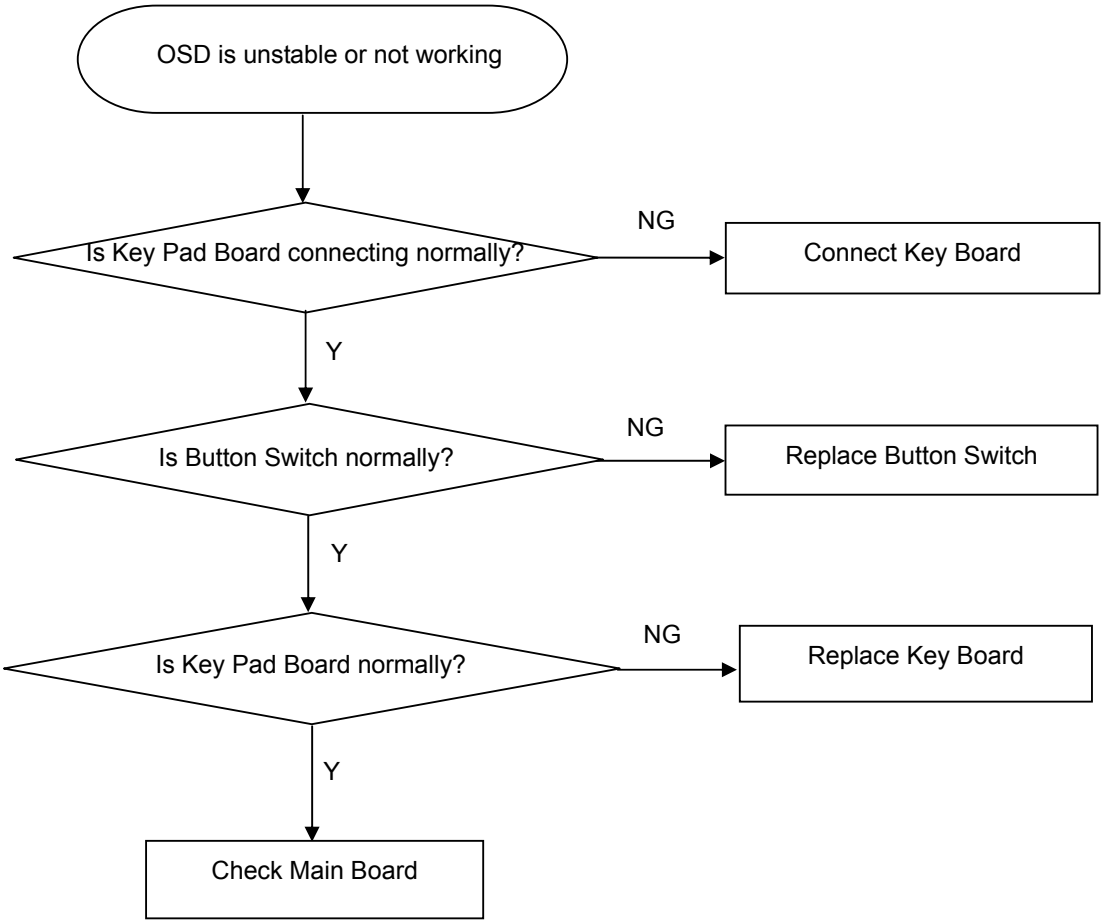
4. Key Board



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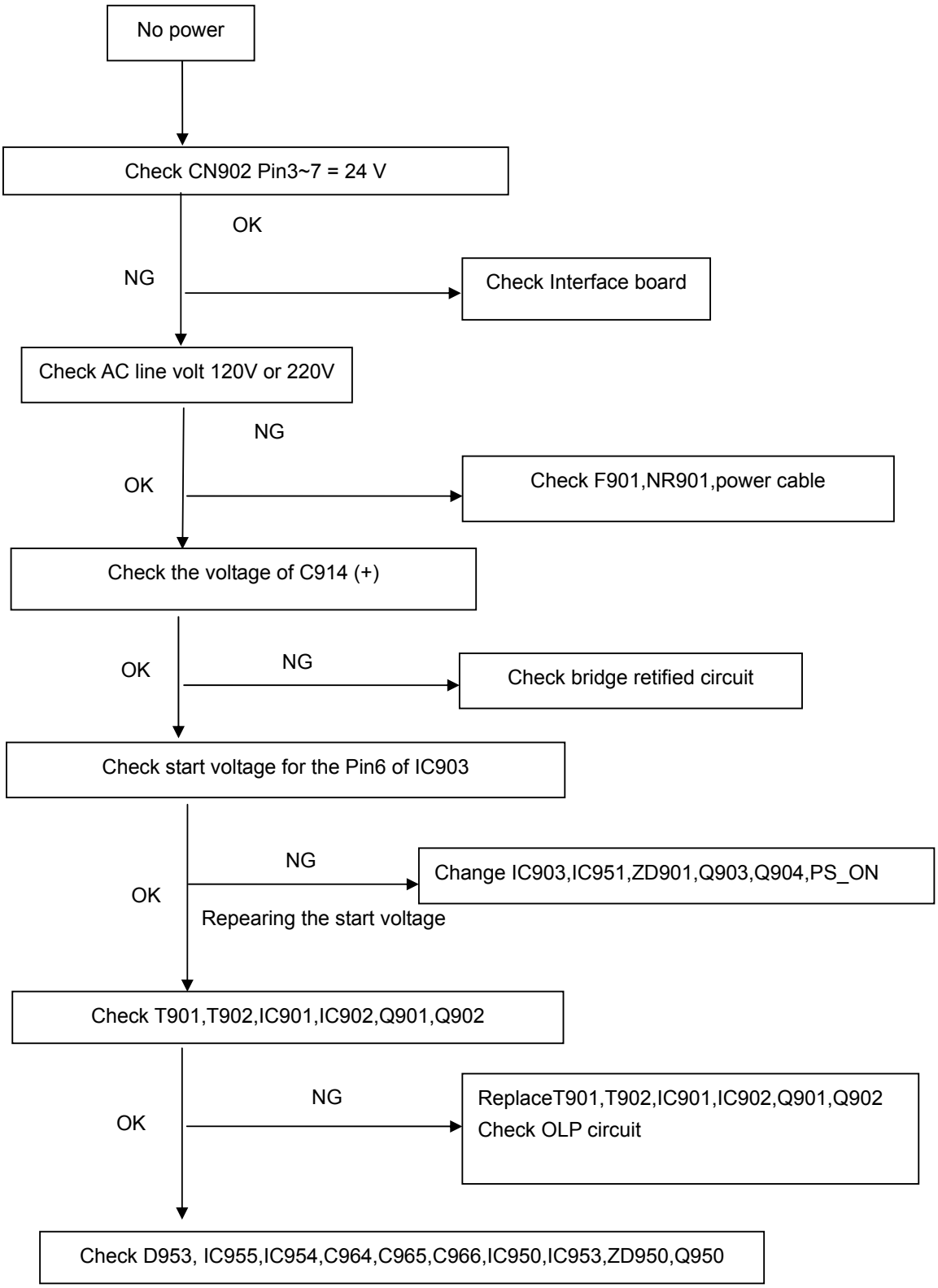
5. Adapter/Inverter Board

No power



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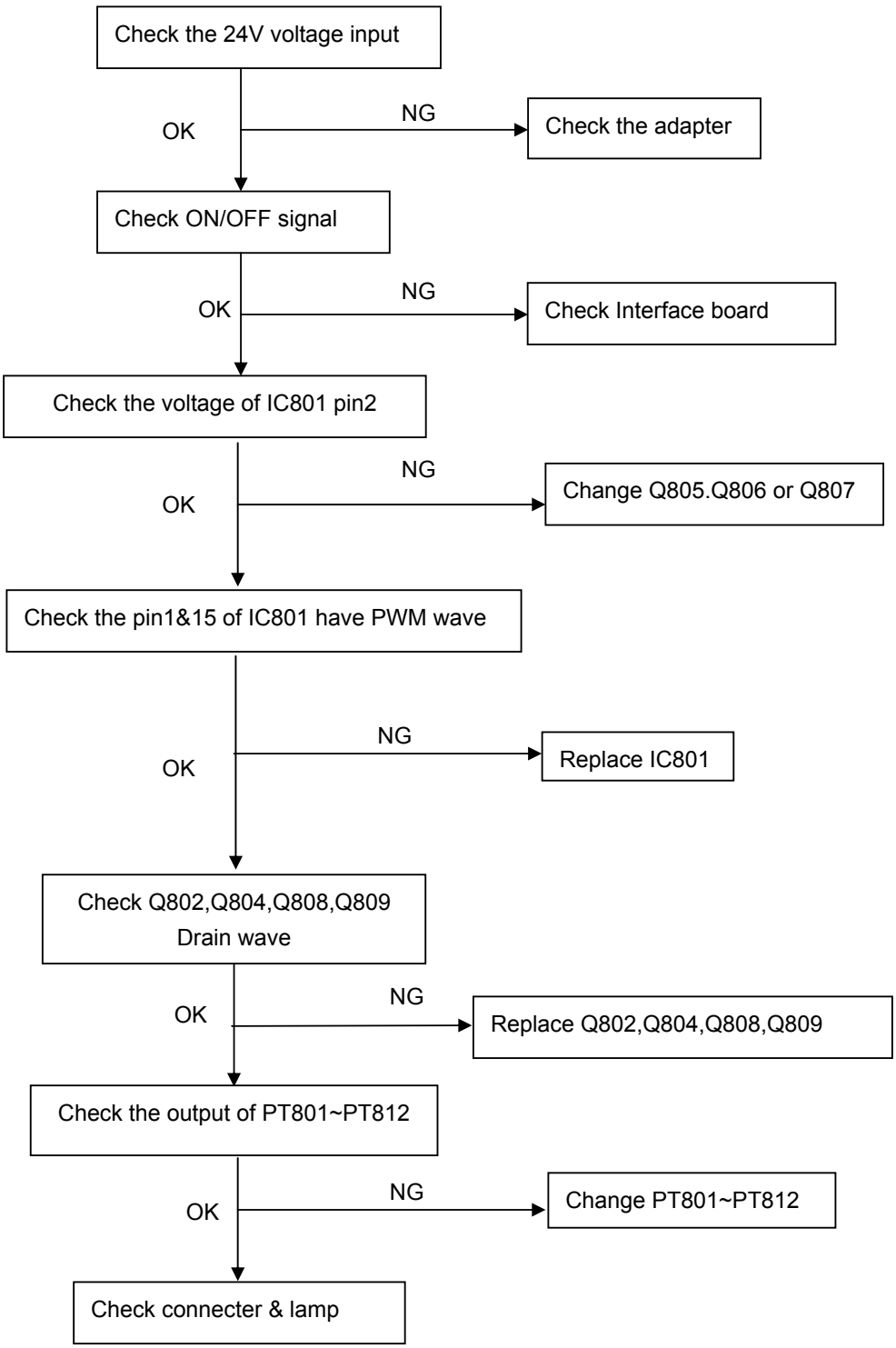
W/LED No Backlight



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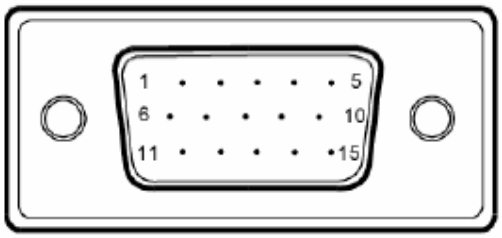
Connector Information

Chapter 5

The following figure shows the connector locations on the monitor:

D-SUB connector



15-Pin Color Display Signal Cable

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1.	Red	9.	+5V
2.	Green	10.	Logic Ground
3.	Blue	11.	Monitor Ground
4.	Monitor Ground	12.	DDC-Serial Data
5.	DDC-return	13.	H-Sync
6.	R-Ground	14.	V-Sync
7.	G-Ground	15.	DDC-Serial Clock
8.	B-Ground		

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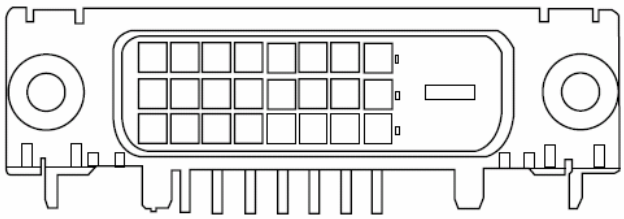
DVI Connector



24-pin color display signal cable

PIN No.	Description	PIN No.	Description
1	TMDS data 2-	13	NC
2	TMDS data 2+	14	+5 V power
3	TMDS data 2/4 shield	15	GND (return for +5 V hsync.vsync)
4	NC	16	Hot-plug detection
5	NC	17	TMDS data 0-
6	DDC clock	18	TMDS data 0+
7	DDC data	19	TMDS data 0/5 shield
8	NC	20	NC
9	TMDS data 1-	21	NC
10	TMDS data 1+	22	TMDS clock shield
11	TMDS data 1/3 shield	23	TMDS clock+
12	NC	24	DDC TMDS clock-

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FRU (Field Replaceable Unit) List

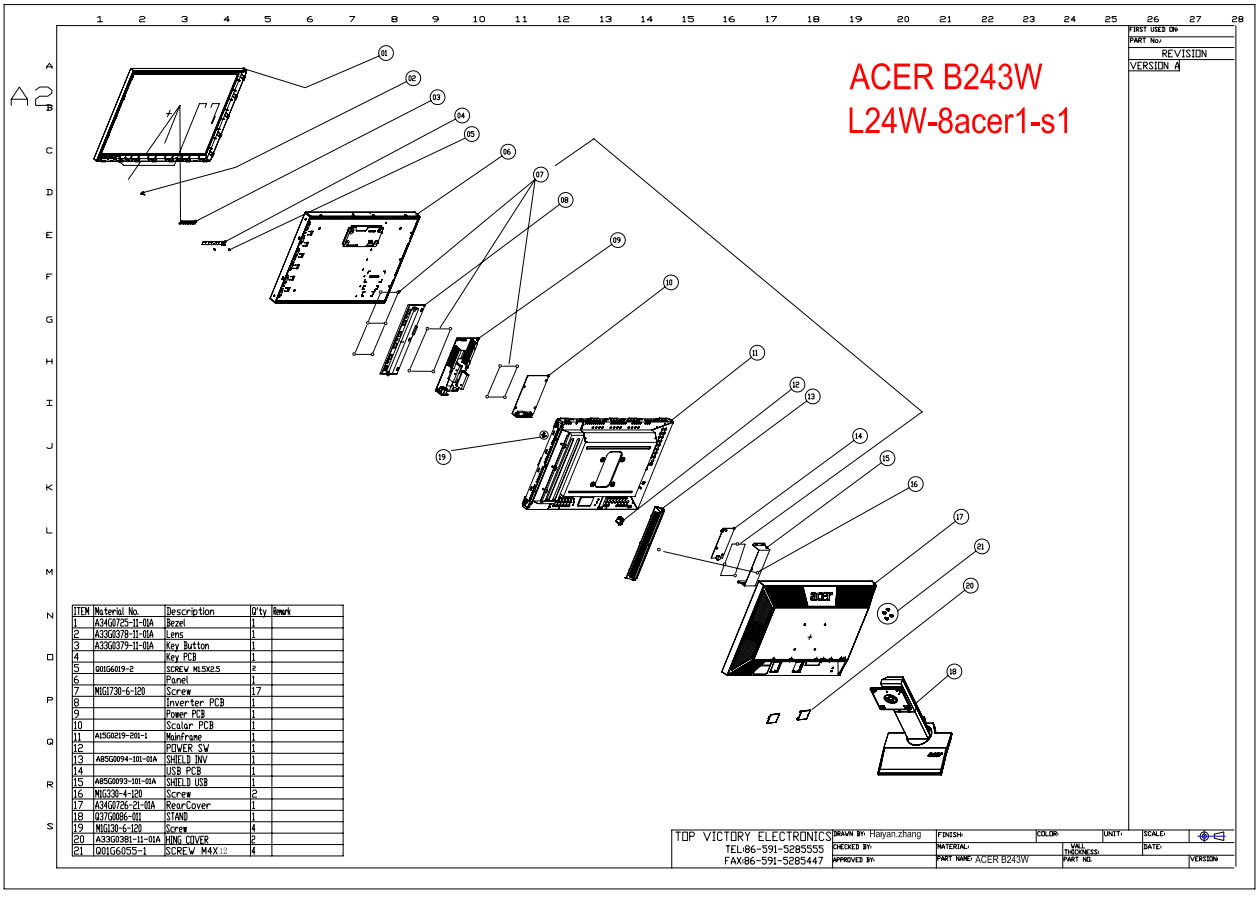
Chapter 6

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of B243W.Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

NOTE: Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel (http://aicsl.acer.com.tw/spl/). For whatever reasons a part number change is made, it will not be noted in the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

Exploded Diagram (Model: B243W)



ITEM	Material No.	Description	Q'ty	Remark
1	A34G0726-11-01A	Bezel	1	
2	A33G0378-11-01A	Lens	1	
3	A33G0379-11-01A	Key Button	1	
4		Key PCB	1	
5	0O1G6019-2	SCREW ML5X25	2	
6		Panel	1	
7	MIGI730-6-120	Screw	17	
8		Inverter PCB	1	
9		Power PCB	1	
10		Scalar PCB	1	
11	A15G0219-201-1	Maintrame	1	
12		POWER SW	1	
13	A85G0094-101-01A	SHIELD INV	1	
14		USB PCB	1	
15	A85G0093-101-01A	SHIELD USB	1	
16	MIGI30-4-120	Screw	2	
17	A34G0726-21-01A	RearCover	1	
18	027G0086-001	STAND	1	
19	MIGI30-6-120	Screw	4	
20	A33G0381-11-01A	HING COVER	2	
21	0O1G6055-1	SCREW M4X12	4	

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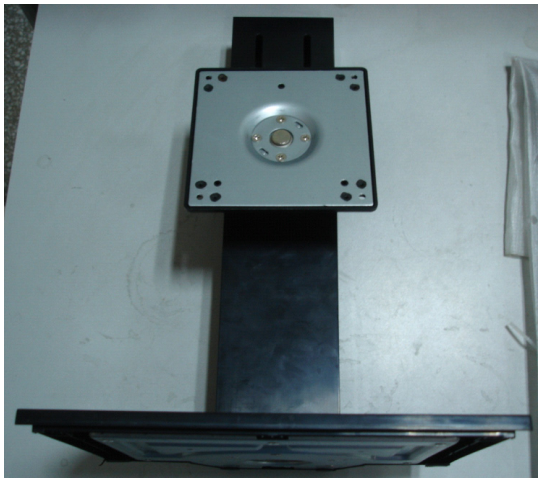
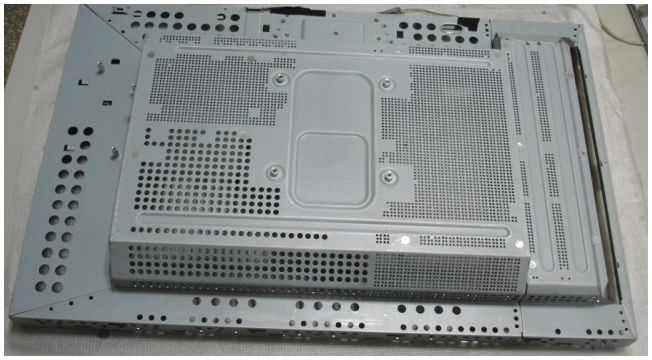
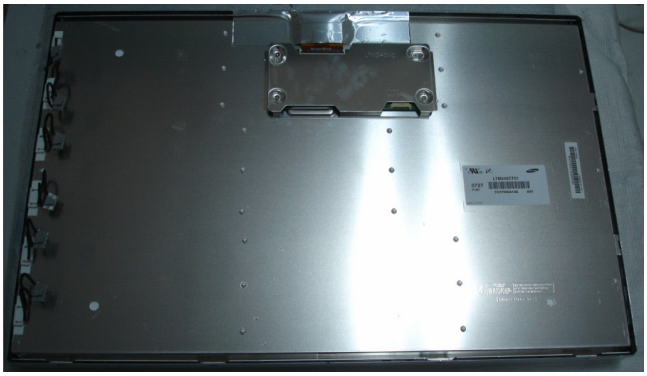
Part List

Above picture show the description of the following component.

Item	Picture	Description
1		Hinge Assembly
2		Main Frame
3		Panel

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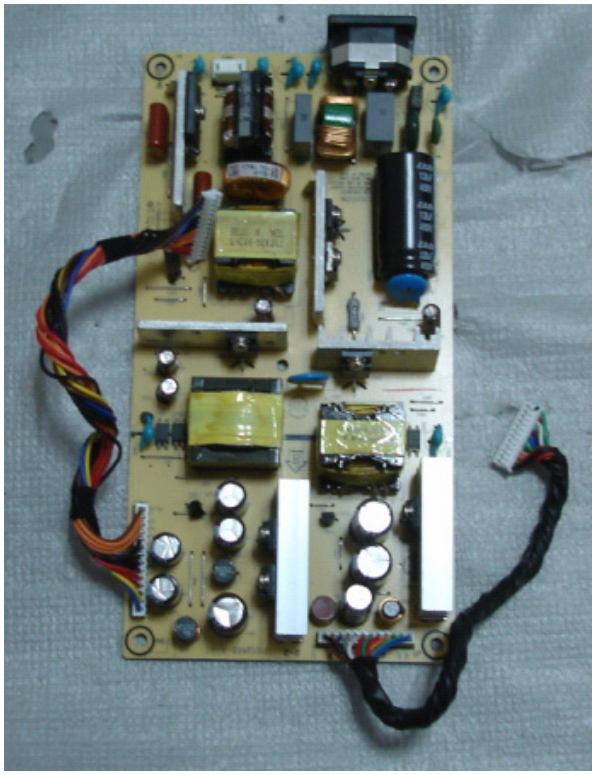
4		Adapter Board

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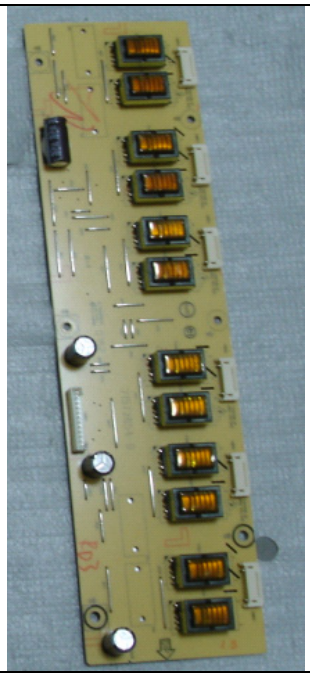
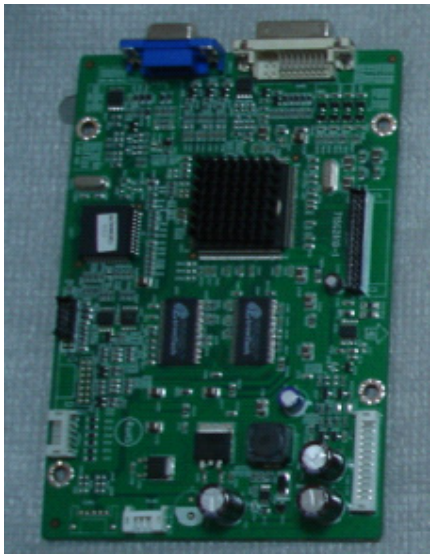
5		Inverter Board
6		Main Board
7		USB Board

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8		LVDS Cable

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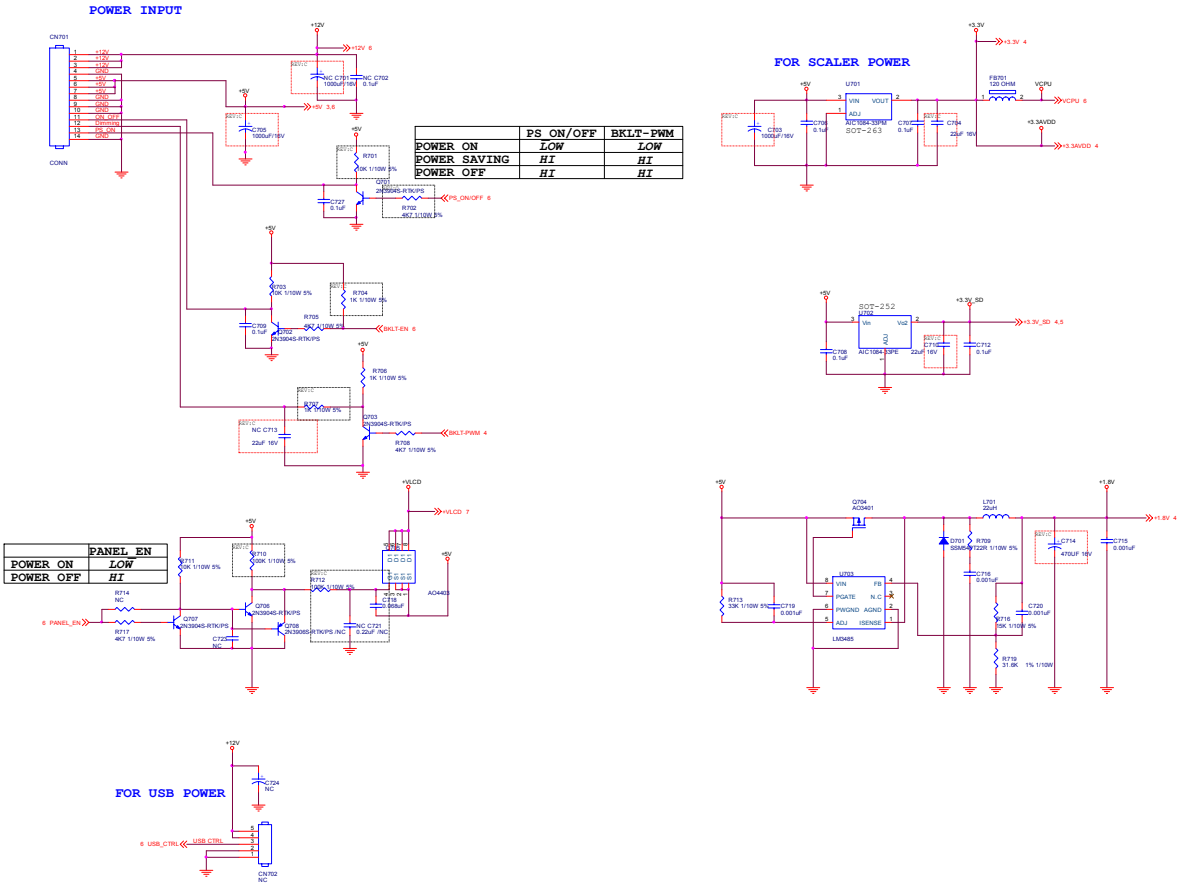
Main Board



	PS_ON/OFF	BKLT-PWM
POWER_ON	LOW	LOW
POWER_SAVING	HI	HI
POWER_OFF	HI	HI

	PANEL_EN
POWER_ON	LOW
POWER_OFF	HI

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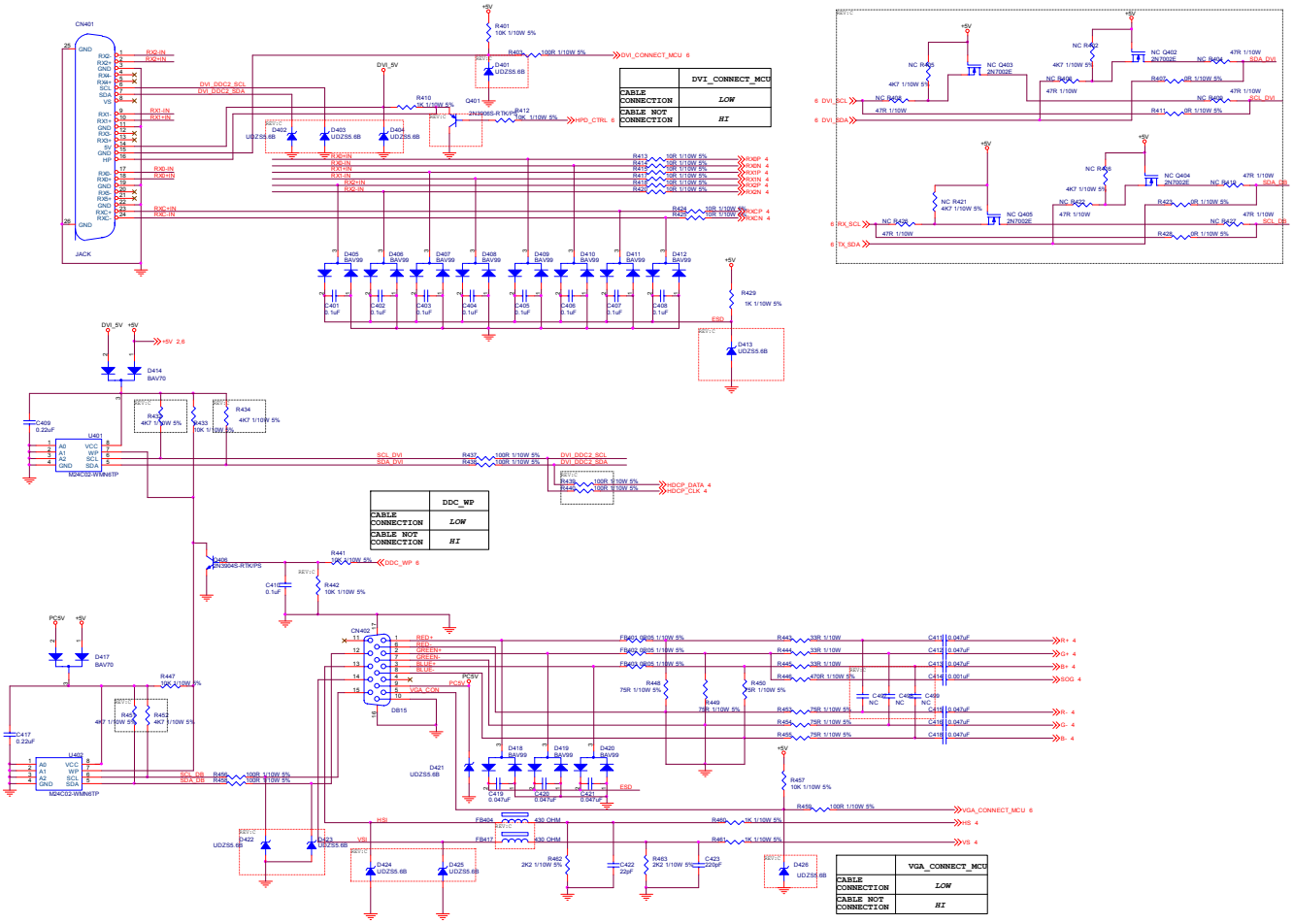

	DVI_CONNECT_MCU
CABLE CONNECTION	LOW
CABLE NOT CONNECTION	HI

	DDC_WP
CABLE CONNECTION	LOW
CABLE NOT CONNECTION	HI

	VGA_CONNECT_MCU
CABLE CONNECTION	LOW
CABLE NOT CONNECTION	HI

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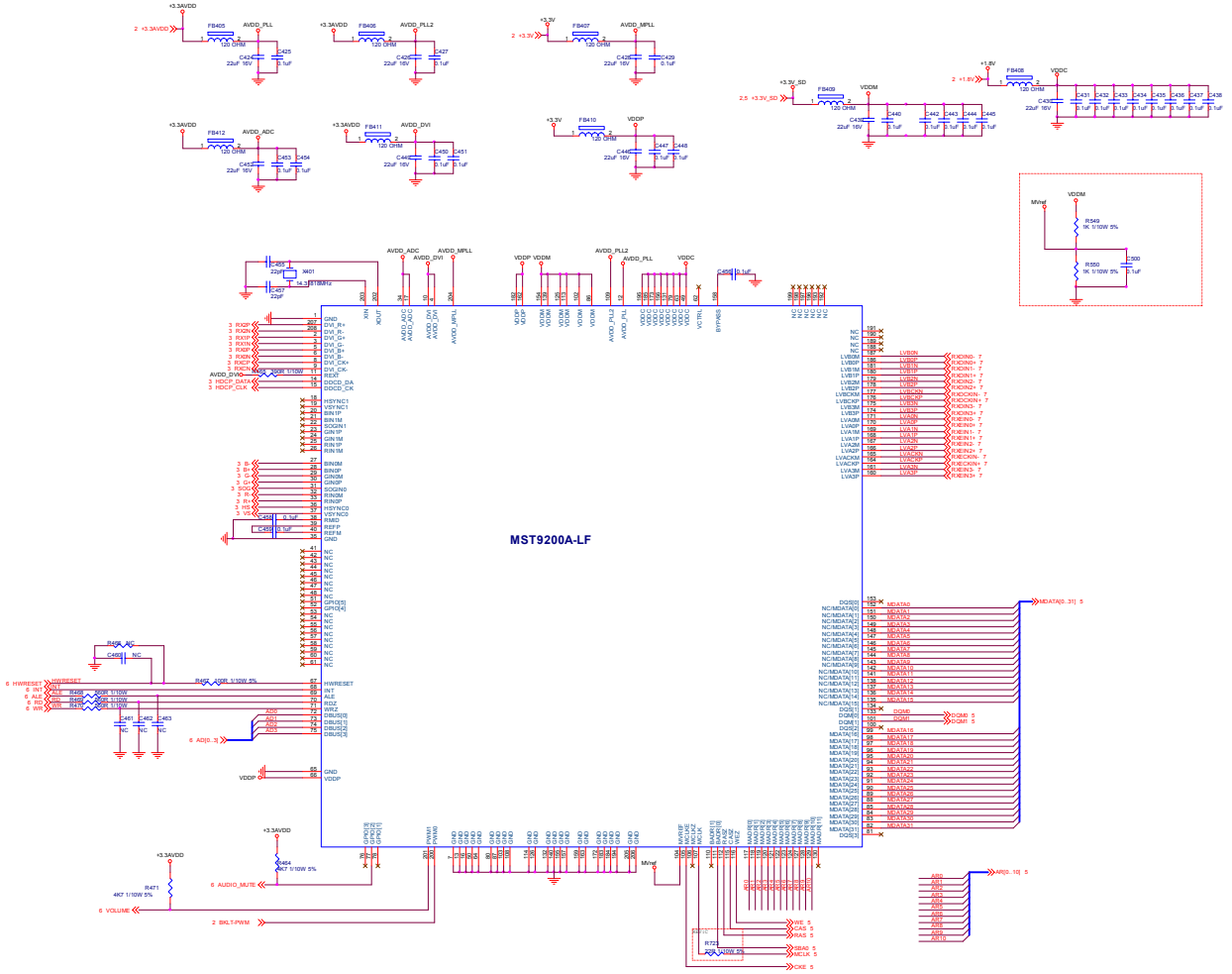

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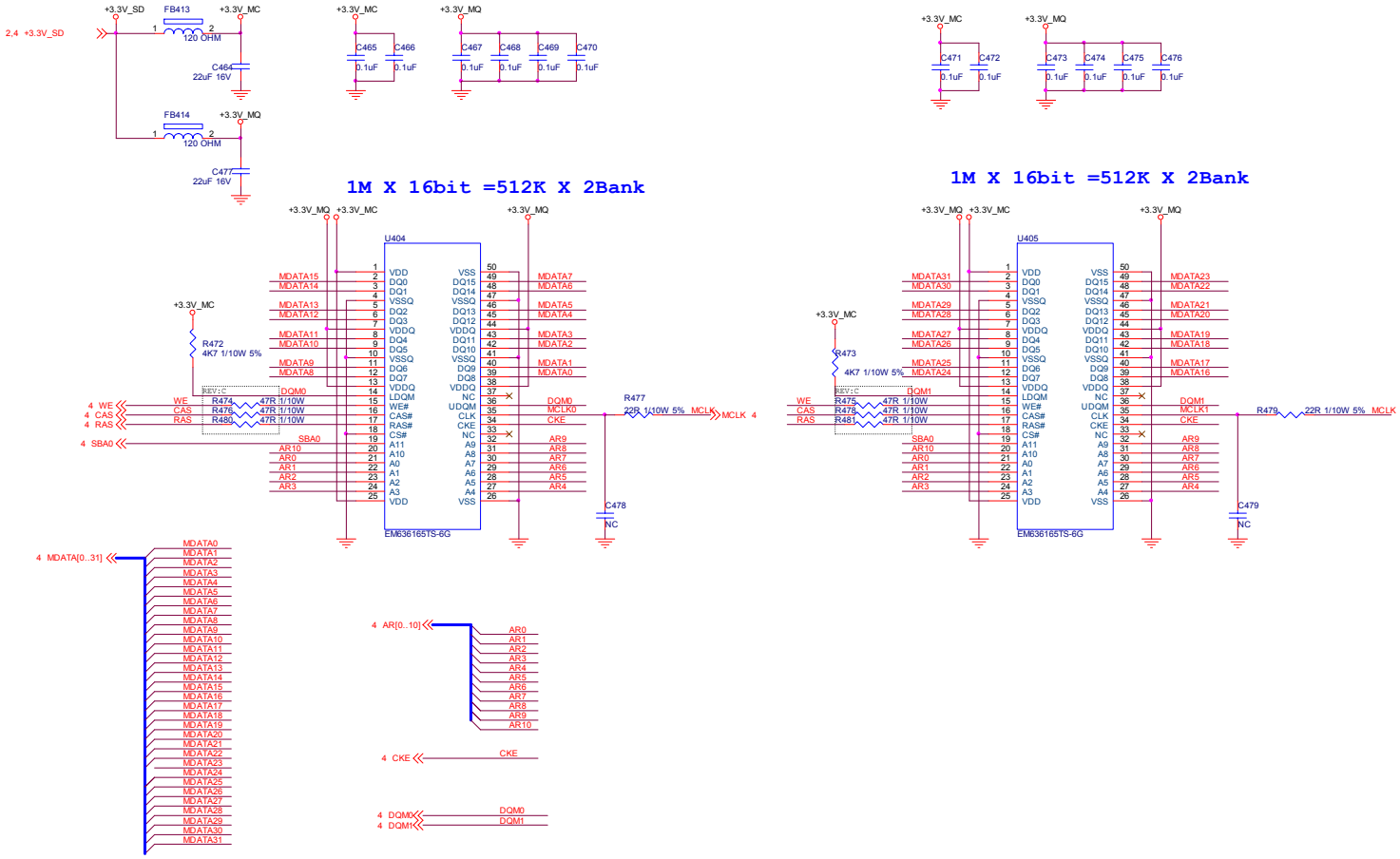

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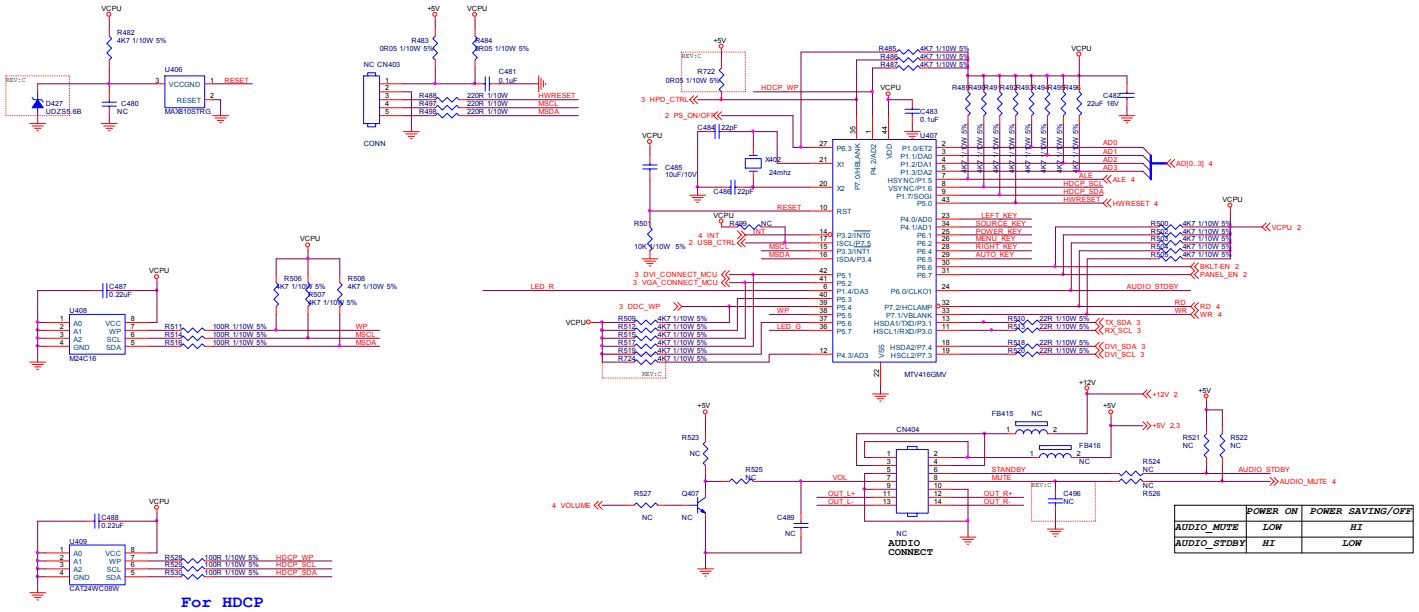
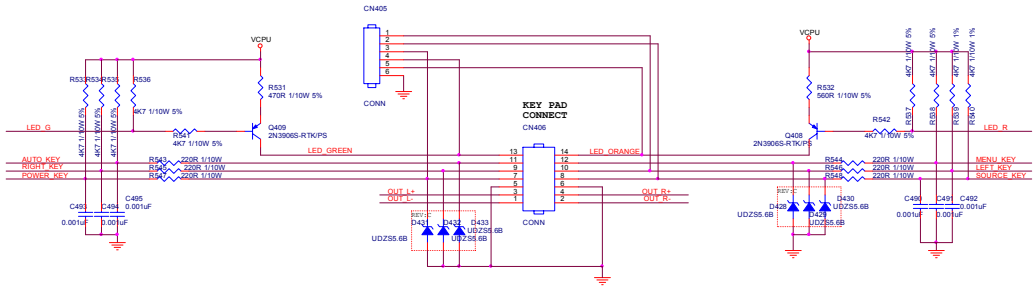


	POWER ON	POWER SAVING/OFF
AUDIO_MUTE	LOW	HI
AUDIO_STDBY	HI	LOW



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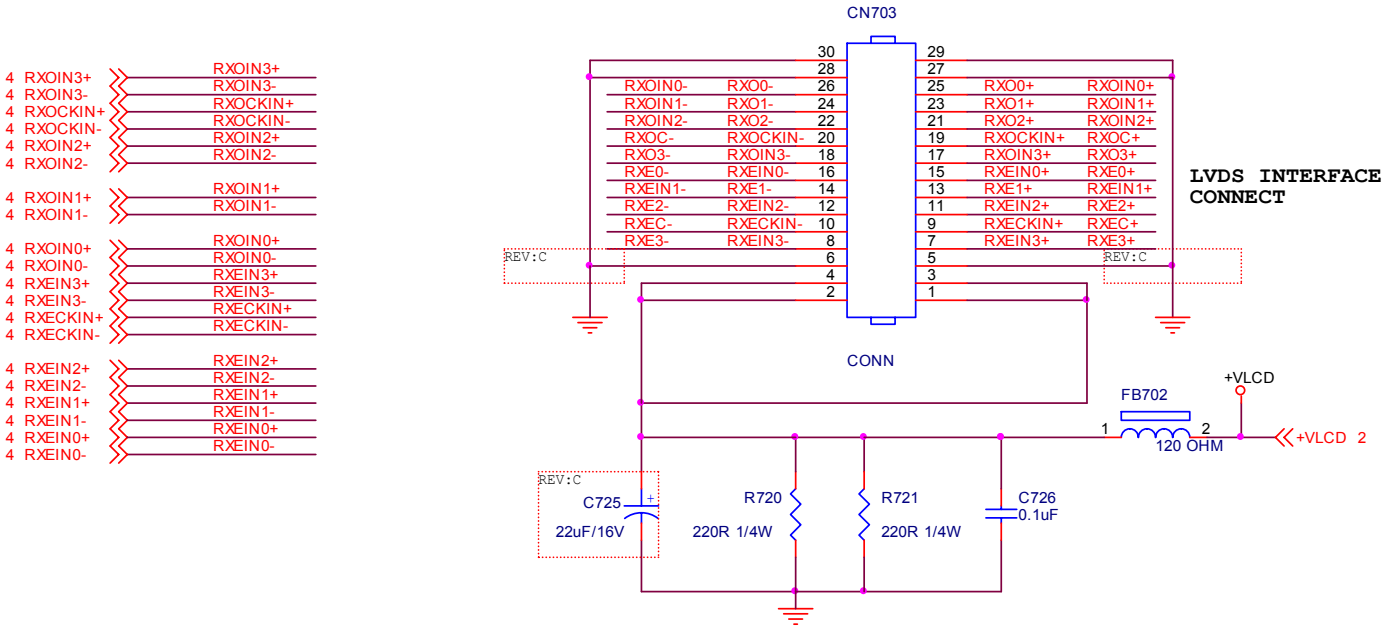

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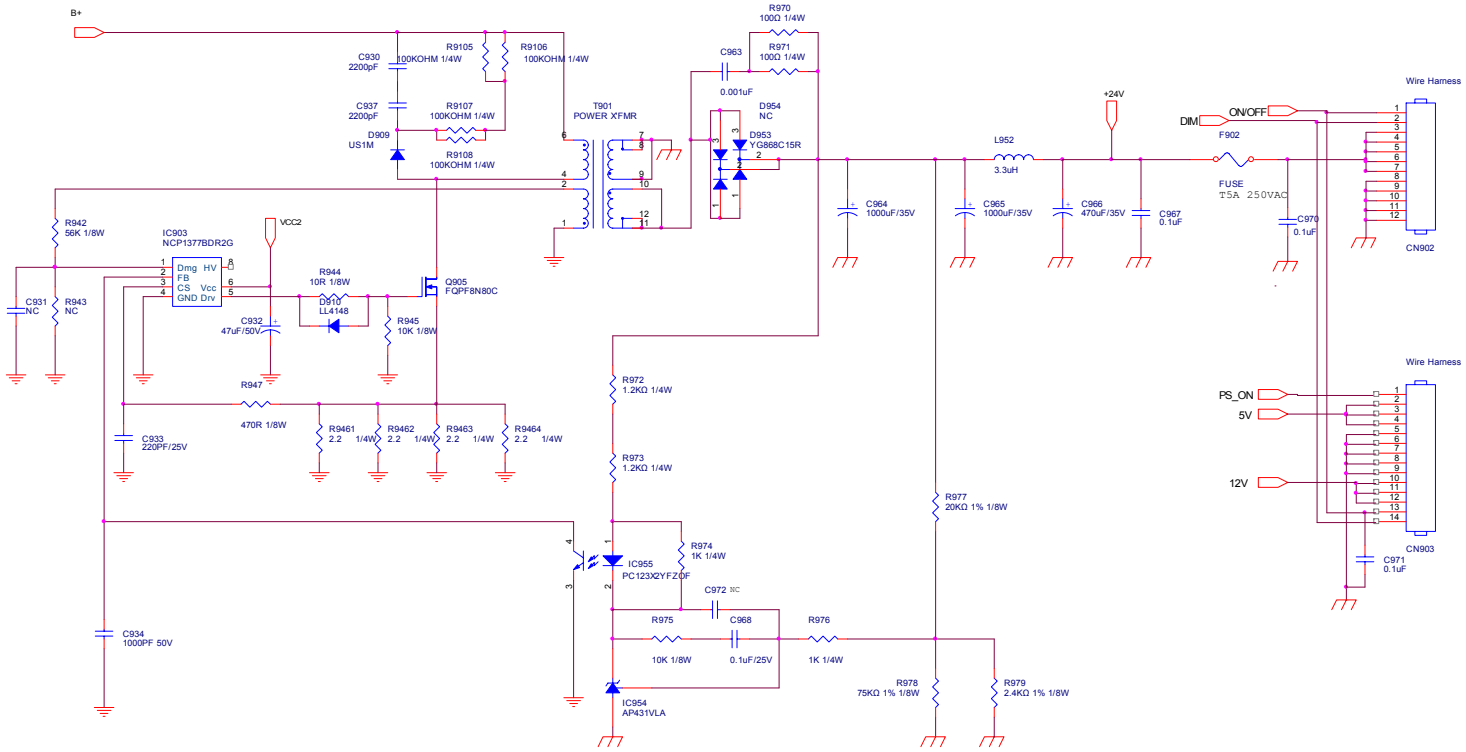
Adapter board



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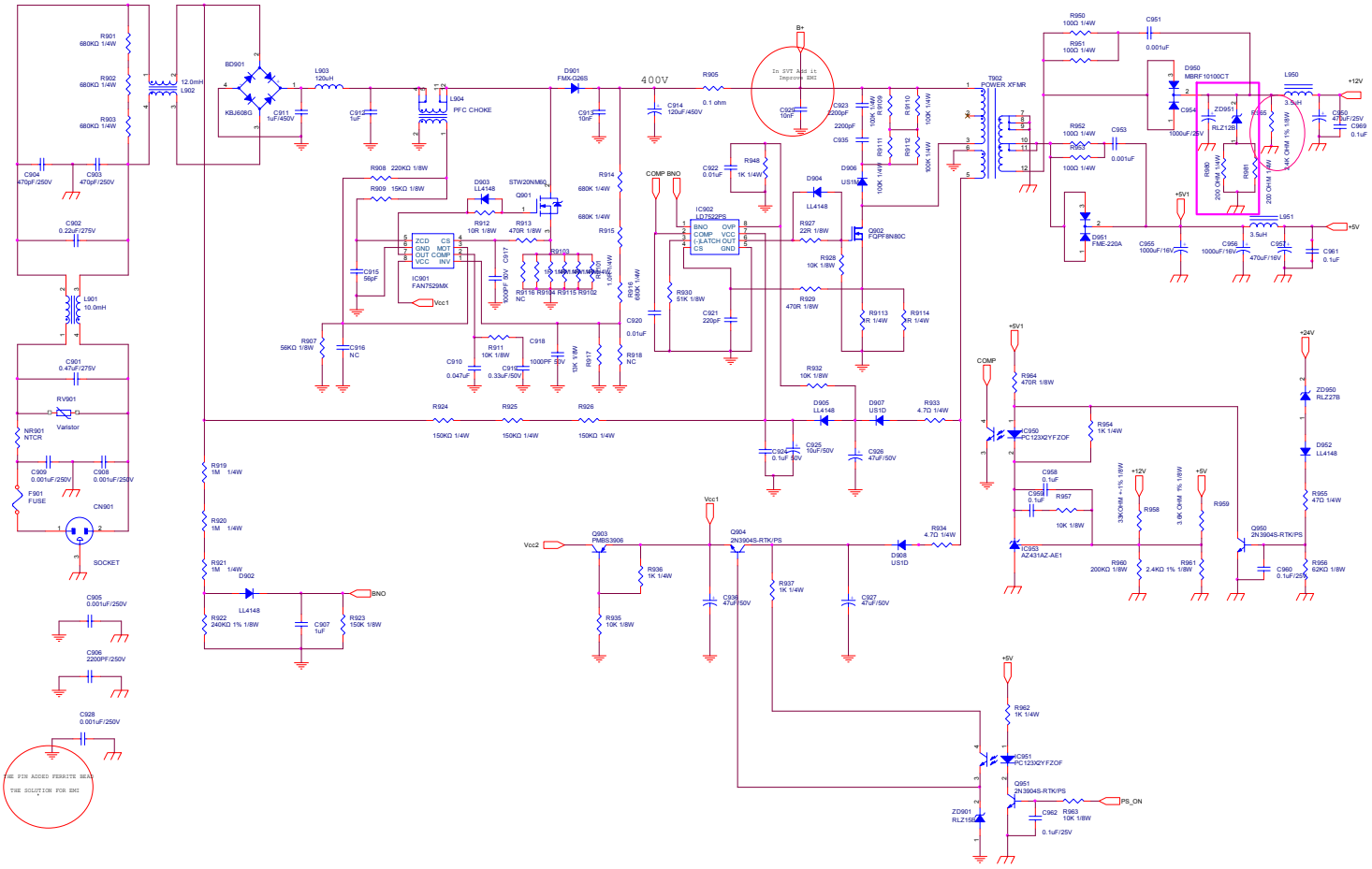

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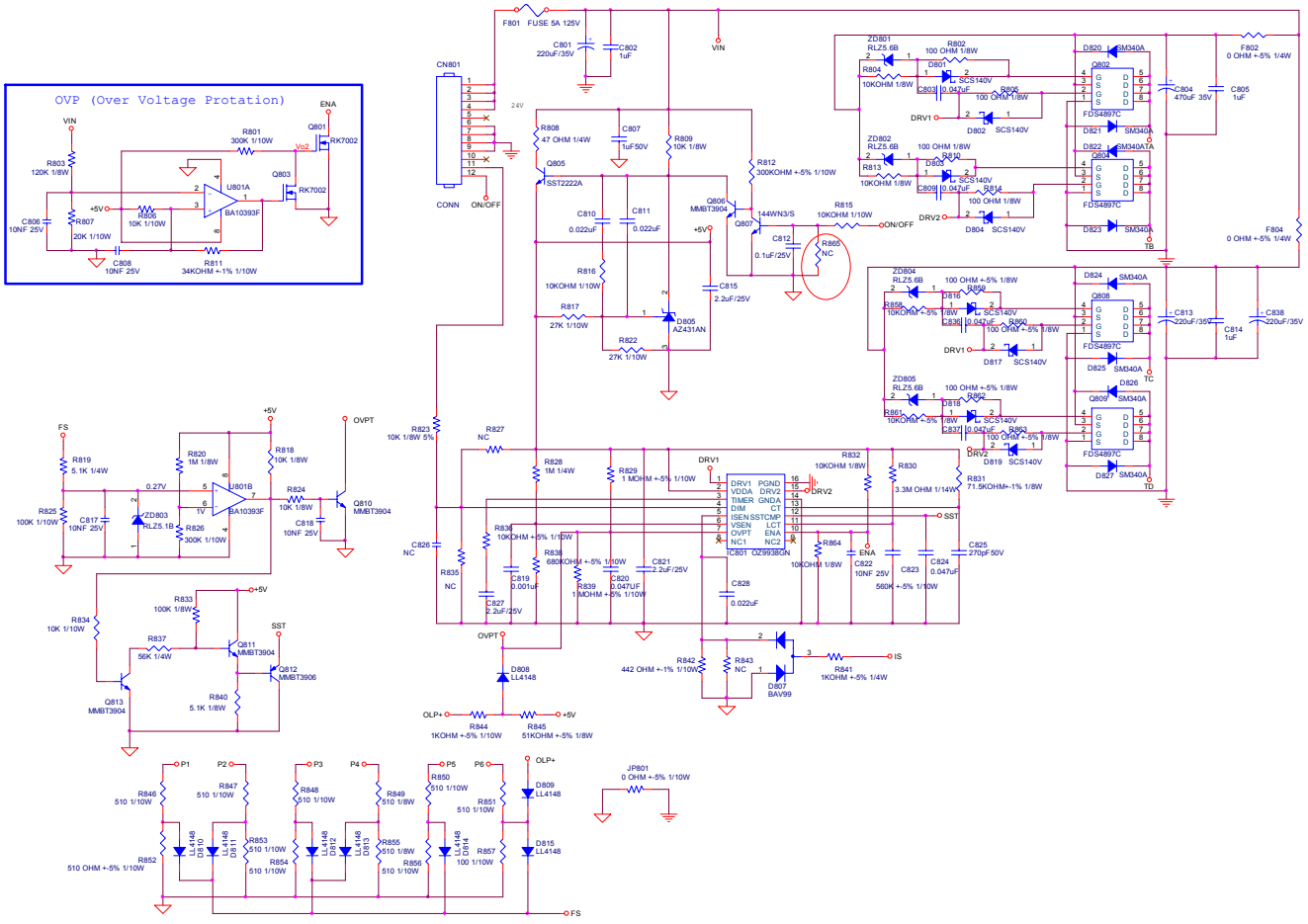
Inverter board



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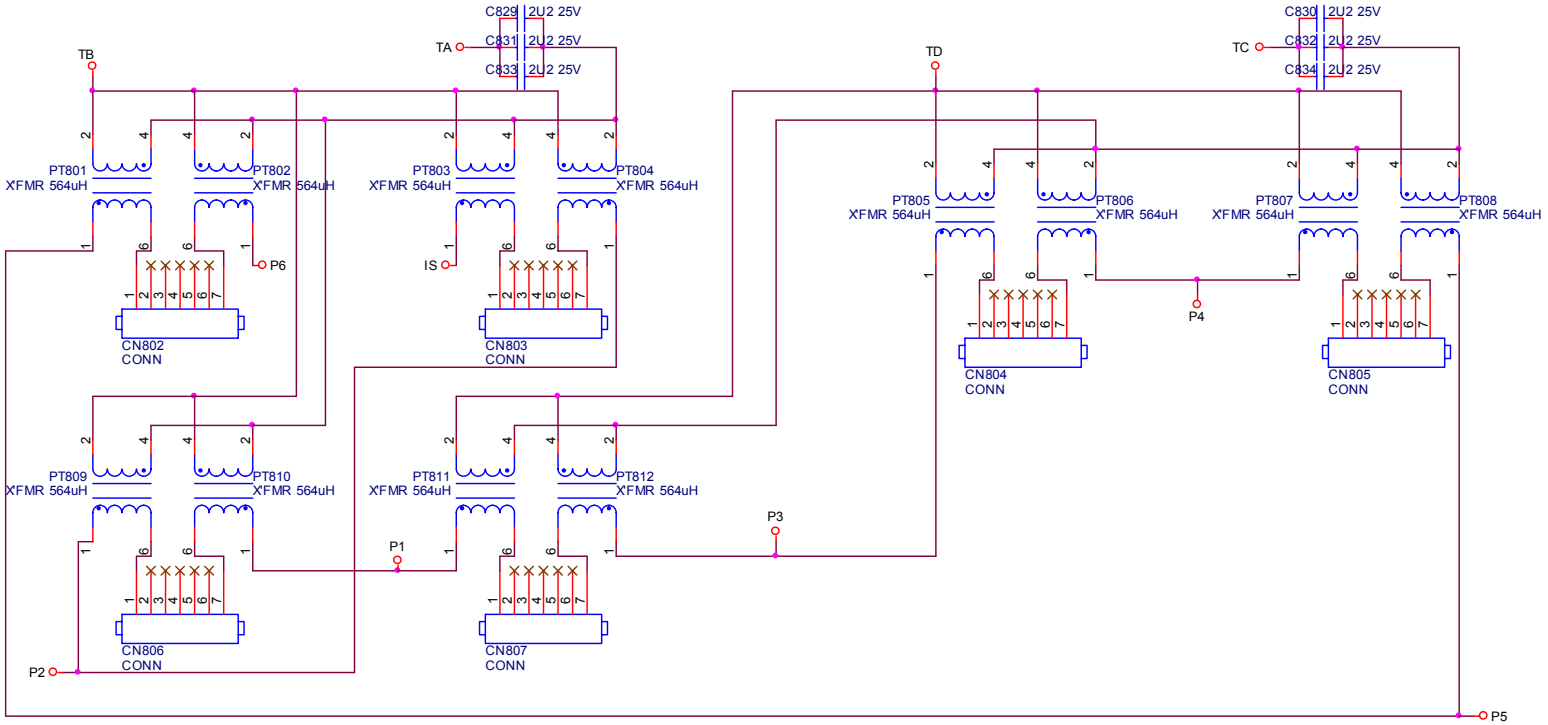

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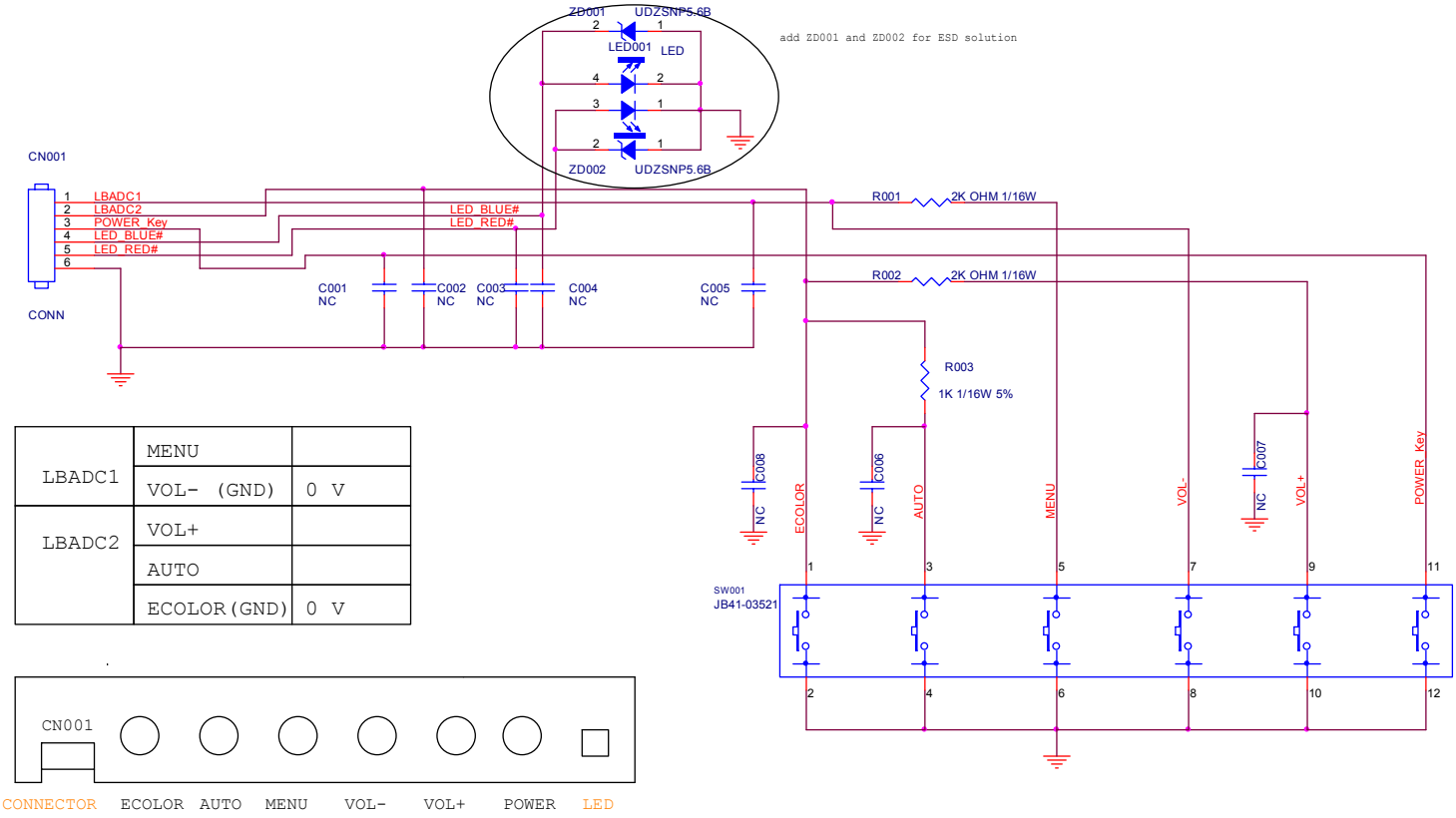
Key board



LBADC1	MENU	
	VOL- (GND)	0 V
LBADC2	VOL+	
	AUTO	
	ECOLOR(GND)	0 V

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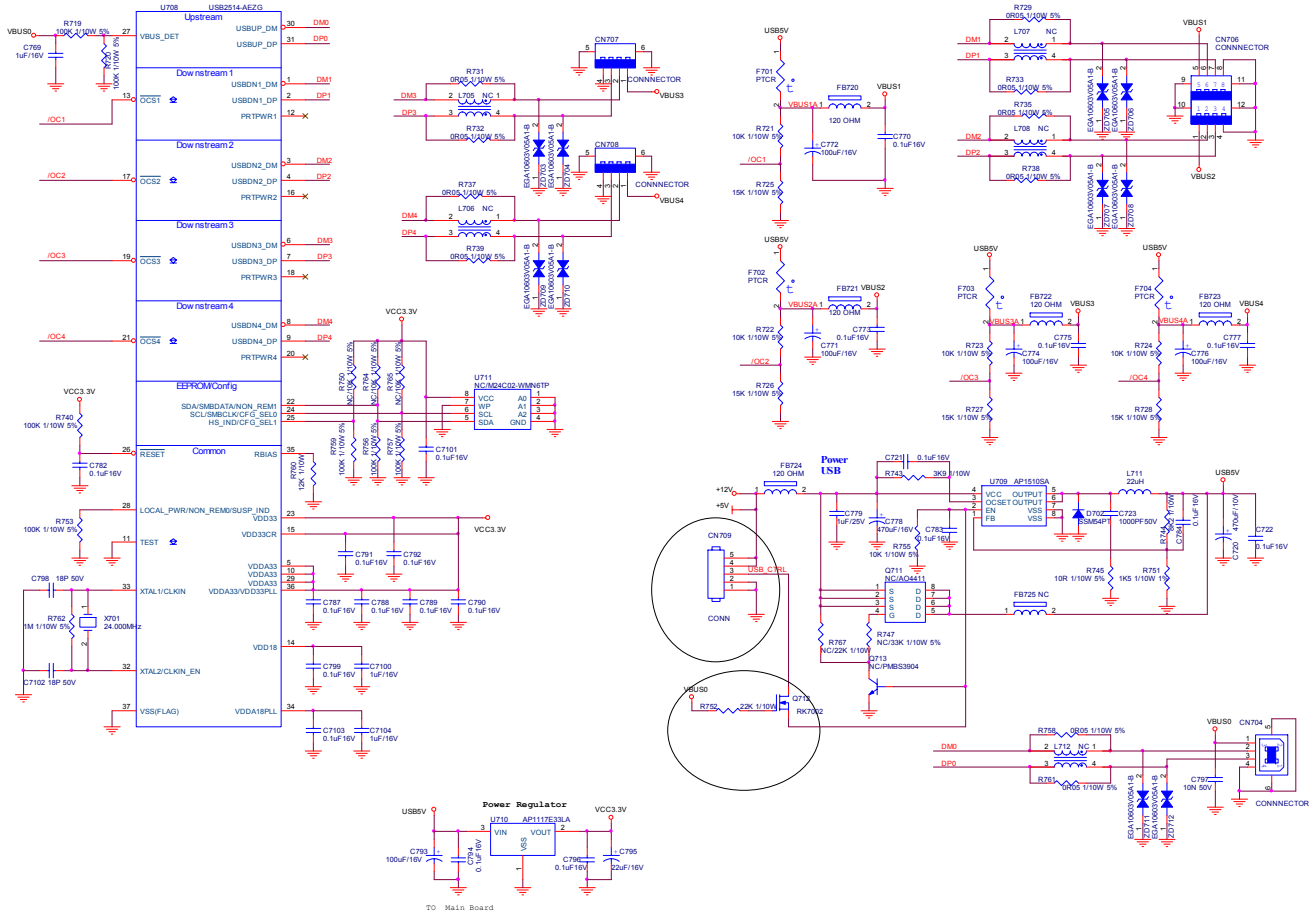
USB board



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